

US EPA RECORDS CENTER REGION 5



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**Groundwater Monitoring Summary Report
September 2003 (Third Quarter)
American Chemical Service, Inc. National Priorities List Site
Griffith, Indiana**

PREPARED FOR:

ACS RD/RA EXECUTIVE COMMITTEE

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SECTION 1.0 – EXECUTIVE SUMMARY

MWH Americas (MWH) has prepared this Groundwater Monitoring Summary Report to present the results from the September 2003 groundwater sampling event at the American Chemical Service, Inc. (ACS) National Priorities List (NPL) Site in Griffith, Indiana. These activities were performed in accordance with the revised long-term groundwater monitoring plan (LTGMP) and the November 2001 United States Environmental Protection Agency (U.S. EPA)-approved Quality Assurance Project Plan (QAPP). The U.S. EPA and Indiana Department of Environmental Management (IDEM) approved the revised LTGMP in a letter dated June 26, 2002.

During the September 2003 sampling event, water level measurements were collected at 79 monitoring wells, piezometers, and staff gauges, and groundwater samples were collected at 12 upper aquifer wells and 16 lower aquifer wells in the monitoring network. Additionally, the annual sampling of five residential wells was conducted during September 2003. The monitoring well samples were analyzed for indicator volatile organic compounds (VOCs) and the residential well samples were analyzed for low-concentration organics (VOCs, semi-volatile organic compounds (SVOCs), pesticides and polychlorinated biphenyls (PCBs)), and inorganic compounds (metals and cyanide). Samples from upper aquifer monitoring wells MW42 and MW44 were also analyzed for metals.

September 2003 groundwater elevations in the upper and lower aquifers were generally higher than those measured in March 2003 and September 2002; however hydraulic gradients remained consistent with those recorded during previous sampling rounds.

Groundwater samples collected from 12 upper aquifer monitoring wells indicate that groundwater plumes to the north and south of the ACS Site are not expanding and that concentrations within the plumes are decreasing. Benzene and chloroethane were the only indicator VOCs detected in the samples from upper aquifer monitoring wells during September 2003. None of these detections exceeded their maximum baseline concentration. The concentration of chromium exceeded the EPA maximum contaminant level (MCL) in the sample collected from the upper aquifer downgradient well MW44.

Groundwater results at 16 lower aquifer wells continue to show fluctuating trends. Benzene exceeded the maximum baseline concentration in the sample collected from MW10C, and chloroethane exceeded the maximum baseline concentration in the sample collected from MW29. Concentrations of benzene and chloroethane in the sample collected from MW10C decreased from the March 2003 concentration, however the benzene concentration increased in the sample collected from MW56. Results from the sample collected at well

MW09R show that benzene and chloroethane concentrations continue to decrease at this well. The chloroethane concentrations from samples collected at MW29, a well nested with MW09R, have shown an increasing trend over the last several sampling events. Trace amounts of benzene have also been detected in samples from MW29 but the concentrations are below MCLs and do not exhibit a trend. The benzene concentration from the sample collected at downgradient well MW53 was consistent with previous concentrations.

In response to the elevated concentrations and MCL exceedances of chromium in well MW44, MWH proposes to re-develop and sample this well for total and dissolved (field filtered) metals during the next scheduled sampling event. In response to the baseline exceedances and

increasing concentration trend at MW29, MWH proposes to continue monitoring the concentrations in this well according to the LTGMP.

In response to the increasing concentration trend at MW53, MWH proposes to continue monitoring the concentrations in this well according to the LTGMP. In response to the continuing exceedances and elevated concentrations at MW10C and MW56, MWH is preparing a draft work plan for a phased lower aquifer investigation to determine the source and potential migration pathway of the benzene detections.

Results from the water samples collected from the residences near the ACS Site continue to show that no site-related compounds have impacted these wells.

SECTION 2.0 – SEPTEMBER 2003 DATA COLLECTION ACTIVITIES

The groundwater monitoring activities conducted at the Site during September 2003 included measuring water levels, collecting samples from monitoring wells, and collecting samples from five residential wells.

2.1 WATER LEVEL MEASUREMENTS

Water level measurements were collected at 79 upper and lower aquifer wells, piezometers, and surface water staff gauges on September 15, 2003. Water levels were not measured at three locations in the monitoring network (P93, P94, and MW10C). Piezometers P93 and P94, were damaged and are scheduled to be replaced in 2004. MW10C currently contains a groundwater pump and associated piping which prevents water level measurement. **Table 1** contains the water level measurements, map coordinates (reference points), top of well casing elevations, and calculated groundwater elevations for the measurement points. Also included in the table is explanation of any difficulties encountered while measuring water levels at the well.

2.2 GROUNDWATER SAMPLING

Groundwater sampling activities were conducted from September 16 through 23, 2003. Each monitoring well was sampled using low-flow methods in accordance with

the Groundwater Sampling Standard Operating Procedure (SOP) developed for the revised LTGMP. Field parameters (pH, specific conductivity, temperature, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity) were measured during well purging, and the values recorded upon stabilization are presented in **Table 2**.

The groundwater samples were sent overnight under chain-of-custody to CompuChem Laboratory, Cary, North Carolina, where they were analyzed for the parameters summarized in **Table 3**. The table lists the upper and lower aquifer monitoring wells in the monitoring well network and the parameters analyzed in the samples collected from each well during the September 2003 event. In accordance with the revised LTGMP, the September 2003 analytical results were compared to the 1997 maximum baseline concentrations. The comparison tables are provided in **Appendix A**.

2.3 RESIDENTIAL WELL SAMPLING

The annual sampling of five residential wells near the Site was conducted on September 23 and 24, 2003. The residential wells were sampled by collecting untreated water (prior to water softening) from an outside spigot. The water was measured for field parameters in

accordance with the sampling SOP. Upon stabilization, the water was collected for submittal to the laboratory. The values recorded upon stabilization are presented in **Table 2**.

Due to a detection of an SVOC (pentachlorophenol) above the MCL in samples collected from PW-Y and PW-A, these residences were re-sampled on November 14, 2003. It was also determined that the residence at PW-Y (1002 Reder Rd.) was connected to a municipal water source and is no longer utilizing their water supply well screened in the lower aquifer.

The fact that this compound was detected in samples from both a municipal water supply (PW-Y) and local

groundwater (PW-A) suggested the source was laboratory instead of site related. Resampling confirmed that pentachlorophenol was not representative of site conditions.

The residential water samples were sent overnight under chain-of-custody to CompuChem Laboratory, Cary, North Carolina, where they were analyzed for low-concentration organics (VOCs, SVOCs, PCBs, and pesticides) and inorganics (metals and cyanide). In accordance with the revised LTGMP, the 2003 residential well analytical results were compared to the 1997 maximum baseline concentrations. The comparison tables are provided in **Appendix A**.

SECTION 3.0 – SEPTEMBER 2003 GROUNDWATER DATA EVALUATION

3.1 GROUNDWATER FLOW SYSTEM DATA

The groundwater elevations listed in **Table 1** were used to develop a water table contour map (**Figure 1**) for the upper aquifer and a potentiometric surface contour map for the lower aquifer (**Figure 2**).

During September 2003, the groundwater flow pattern in the upper aquifer was consistent with previous monitoring events. Regional groundwater flow is generally east to west. It is diverted to the north and south by the barrier wall as it approaches the site. The gradient northwest of the site is relatively flat due to the affects of the PGCS trench, barrier wall, and discharge points from the groundwater treatment plant. Groundwater to the south of the site flows to the south and southeast.

The groundwater flow pattern in the lower aquifer is northward at a relatively low hydraulic gradient. This is consistent with historical groundwater data. The hydraulic gradient calculated between wells MW50 and MW52 was 0.00035 feet per feet (ft/ft) during September 2003. The average hydraulic gradient calculated from measurements in the lower aquifer since 1995 is 0.00040 ft/ft.

3.2 MONITORING WELL ANALYTICAL DATA

During the September 2003 sampling round, samples from 12 wells in the upper aquifer and 16 wells in the lower aquifer were analyzed for indicator VOCs. Additionally, samples from upper aquifer wells MW42 and MW44 were analyzed for metals. In accordance with LTGMP, the analytical results from the upper and lower aquifer monitoring wells were compared to the 1997 maximum baseline concentrations and to data from previous sampling rounds.

3.2.1 Upper Aquifer Results

Table 4 summarizes the detections of organic compounds in the samples from the 12 upper aquifer wells collected during September 2003. **Table 5** presents the detections of inorganic compounds for upper aquifer wells MW42 and MW44. **Figure 3** shows the well locations and detected organic compounds on a map of the ACS Site. Graphs presenting the concentrations of benzene and chloroethane versus time for the upper aquifer monitoring wells are presented in **Appendix B**. The validation narrative and laboratory analytical reports for samples from the upper aquifer are provided in **Appendix C**.

VOC Results

Benzene and chloroethane impacts have been observed outside of the barrier wall in two areas of the upper aquifer. North of the site, these detections have consistently occurred in samples collected from wells MW48 and MW49. South of the site, benzene and chloroethane detections have extended from samples collected at MW06 to MW19 and MW45. The groundwater monitoring program in the upper aquifer has focused on monitoring concentrations upgradient, within, and downgradient of these impacted areas.

- Upgradient wells: Benzene and chloroethane were not detected in samples collected from upgradient monitoring wells MW11 or MW17. Tetrachloroethene, which has previously been detected at trace concentrations in samples from MW17, was not detected in samples from any monitoring well during September 2003.
- Interior wells: Benzene was detected in samples collected from the interior upper aquifer wells. Benzene concentrations in the samples from MW06, MW19, and MW45 were consistent with previous results and continue to show decreasing trends. Concentrations of benzene in the samples collected from wells MW48 and MW49 remained elevated (1,800 µg/l and 400 µg/l, respectively). Chloroethane was only detected in samples from wells MW19 (20 µg/l) and MW49 (38 µg/l). There were no baseline

exceedances in samples collected from any upper aquifer interior wells.

- Downgradient wells: No VOCs were detected in samples from downgradient wells in the upper aquifer, except in the sample from MW15, where benzene was detected at a concentration of 2.8 µg/l. Well MW15 is located downgradient of the Town of Griffith Landfill.

Inorganic Results

During the previous sampling event (March 2003), the concentrations of antimony, arsenic, chromium, and thallium exceeded the MCLs in the sample collected from MW44, and the concentration of thallium exceeded the MCL in the sample collected from MW42. These wells were re-sampled for these metals during September 2003. **Table 5** summarizes the inorganic detections at these two upper aquifer wells during the March and September 2003 sampling events. The concentrations of antimony, arsenic, and thallium in the samples from wells MW42 and MW44 were below the respective MCLs during September 2003. However, the concentration of chromium in the sample from MW44 (148 µg/l) exceeded the MCL of 100 µg/l.

MW42 and MW44 were installed at the outer boundary of the original extent of the benzene plume to the south of the Site. Benzene and other VOCs have not been detected consistently at either of these locations.

3.2.2 Lower Aquifer Results

Table 6 summarizes the detections of organic compounds in the 16 lower aquifer monitoring wells sampled during the September 2003 event. **Figure 4** shows the well locations and detected organic compounds on a map of the ACS Site. Graphs presenting the concentrations of benzene and chloroethane versus time for the lower aquifer monitoring wells are presented in **Appendix B**. The validation narrative and laboratory analytical reports for samples from the lower aquifer are provided in **Appendix C**.

VOC Results

In the past, benzene and chloroethane have been detected in the samples collected from lower aquifer monitoring wells MW09, ATMW4D, and MW10C. Failure of the surface seal probably provided the path at MW09 and ATMW4D which allowed benzene and chloroethane to migrate locally into the lower aquifer. These wells have been properly abandoned and replaced by MW09R and MW56. The detections at MW10C may be a downgradient indication of the migration at MW09 or ATMW4D.

- Upgradient well: No VOCs were detected in the sample collected from lower aquifer monitoring well MW28, located south of the site.
- Interior wells: Benzene and chloroethane were the only indicator VOCs detected in the samples collected

from interior wells MW09R, MW10C, MW29, and MW56. Concentrations of benzene in the sample collected from MW10C and chloroethane in the sample collected from MW29 exceeded maximum baseline concentrations. The concentration of benzene in the sample collected from MW10C decreased from 4,800 µg/l in March 2003 to 1,800 µg/l in September 2003. The concentration of benzene in the sample collected from MW56 increased from 560 µg/l in March 2003 to 1,200 µg/l in September 2003.

- Downgradient wells: VOCs were not detected in any samples collected from downgradient monitoring wells, with the exception of benzene in the sample collected from MW53 (7.9 µg/l).

3.2.3 Discussion

The Site source areas are currently contained within the barrier wall which is limiting migration of contaminants to adjacent areas in the upper aquifer. The groundwater monitoring program is structured specifically to monitor groundwater outside the barrier wall.

Upper Aquifer

VOCs

North of the Site, sampling results from interior wells MW48 and MW49 since 1997 continue to show generally decreasing concentration trends. Years of monitoring

data at these wells show that concentrations fluctuate on a seasonal pattern, with concentrations being higher during the summer and fall months and lower when sampled in winter and spring. The September 2003 benzene concentration in the sample from MW48 (1,800 µg/l) increased slightly since March 2003 (440 µg/l) and September 2002 (1,300 µg/l); however, the overall trend in benzene concentrations at this well continues to be downward. Chloroethane was not detected in the sample from MW48 during September 2003.

Several of the upper aquifer monitoring wells located south of the Site also exhibit seasonal variability. For example at MW06, concentrations are generally higher in the winter/spring and lower in the summer/fall. Nevertheless, there does appear to be a general downward trend in VOC concentrations since the barrier wall was installed in 1997. The benzene (39 µg/l) and chloroethane (below detection limits) concentrations in the sample collected from MW06 in September 2003 were lower than in September 2002 (54 µg/l and 56 µg/l, respectively).

Concentrations in samples collected from interior well MW45, located 1000 feet downgradient of MW06, continue to show decreasing concentrations trends over the last several years. Concentration trends at this well is clearly shown in the graph in **Appendix B**. In contrast, the concentrations in samples collected from interior well

MW19, located 500 feet downgradient of MW06, continue to show variable concentrations with no apparent trend. Tetrachloroethene and trichloroethene have occasionally been detected at trace amounts in samples collected from upgradient well MW17 during previous sampling events. Neither compound was detected in September 2003 samples from this well. Benzene and chloroethane are not typically detected in samples collected from this well, which was located downgradient from the Kapica-Pazmey area prior to installation of the barrier wall. Current groundwater elevation data indicate that well MW17 is upgradient of the site. This well replaced upgradient well MW18 in the monitoring well network, after MW18 became obstructed and was abandoned in March 2002.

Trace amounts of VOCs have occasionally been detected at some downgradient wells. However, the concentrations at these downgradient wells generally:

- Are below maximum baseline concentrations,
- Show decreasing trends, or
- Are only occasionally detected.

Data from upper aquifer monitoring wells indicate that VOC contamination has not spread beyond historical limits. Perimeter monitoring wells have been generally free of benzene and chloroethane detections and concentrations within the plume have been decreasing.

Inorganics

During the March 2003 sampling event, several metal analytes were detected above their respective U.S. EPA MCLs in the samples collected from wells MW42 and MW44. These wells are located at the outer boundary of the original benzene plume to the south of the site. This plume has diminished, and the primary groundwater contaminants, benzene and chloroethane, have only occasionally been detected at these locations and then only at trace concentrations. Samples from these wells were analyzed for metals during September 2003. All of the concentrations detected during the September 2003 in the samples from wells MW42 and MW44 were below the EPA MCLs, except for chromium, which was detected in the sample from MW44 at a concentration of 148 µg/l.

The concentrations of chromium in samples from well MW44 have exceeded the MCL each of the last three times it has been sampled: September 2003, March 2003, and March 2000. These exceedances of chromium at MW44 may be a secondary effect of natural attenuation in the benzene plume. The chemical changes in the aquifer may have mobilized metals, resulting in elevated detections of chromium in the groundwater samples.

High turbidity readings may have also resulted in higher concentrations of inorganic compounds than are actually present in the sample. Increasing turbidity readings have recently been observed at wells MW42 and MW44. The turbidity readings at MW42 and MW44 have increased

from 5 and 18 Nephelometric turbidity units (NTUs), respectively, in September 2001, to 82 and 103 NTUs, respectively, in September 2003.

Lower Aquifer

VOCs

In the lower aquifer, the groundwater results continue to show isolated detections, apparently related to localized effects. Prior to being replaced, samples collected from monitoring well MW09 contained concentrations of benzene and chloroethane as high as 290 and 2,900 µg/l, respectively. Since MW09R replaced MW09, the benzene and chloroethane concentrations have decreased to the current concentrations of 6.6 and 61 µg/l, respectively, the lowest since MW09R was installed.

Well MW29 is nested with wells MW09R and MW34. MW29 is screened in the middle portion of the lower aquifer, while MW09R and MW34 are screened in the upper and lower part of the lower aquifer, respectively. Chloroethane concentrations in samples collected from well MW29 have gradually increased over the last several sampling events and exceeded maximum baseline concentrations since September 2002. The increasing concentration of chloroethane is likely due to diffusion because of the concentration gradient.

In samples collected from downgradient well MW53, located along the northern boundary of the Site northwest

of the ACS facility, benzene concentrations have increased gradually from below detection limits in 1997 to 8 µg/l in March 2003. The benzene concentration in the sample from this well in September 2003 (7.9 µg/l) is consistent with the March 2003 result. Historical groundwater elevations indicate a very small downward gradient at this location. It is unclear if the benzene concentrations in samples collected from MW53 are hydraulically connected to the detections in samples collected from MW10C or MW09R, which are screened higher up in the lower aquifer.

In response to consistently high benzene concentrations in samples collected from interior wells MW10C and MW56, a purging system was installed at these wells and has been operating since October 2002. This system extracts groundwater at a rate of 2 gallons per minute to the existing groundwater treatment plant where it is treated and discharged to the wetlands. Flow meters installed at each well are inspected weekly to provide a measure of the gallons pumped. As of the end of September 2003, the system has pumped about 1,022,000 gallons of groundwater from these wells (**Appendix D**). These low-rate extraction pumps operating in MW10C and MW56 may be a factor in the variability observed in VOC concentrations in samples collected from these wells.

Corrective Actions

According to the LTGMP, MWH is to propose corrective actions for analytical results that exceed maximum baseline concentrations or that demonstrate increasing trends. The following lists the exceedances (underlined) and the corrective action taken:

- Elevated concentrations and MCL exceedances of chromium detected in the sample collected from well MW44: MWH recommends that monitoring well MW44 be re-developed prior to the next scheduled sampling round (March 2004). This will remove fine sediment and other material that might be affecting sample results. In addition to the scheduled analyses for this well, the sample from this well will also be analyzed for total and dissolved metals. The dissolved metals sample will be field filtered using a clean, disposable 0.45 micron filter. This will determine if high turbidity is affecting the sample results.
- Baseline exceedance and increasing chloroethane concentrations in samples collected from well MW29: MWH will continue monitoring the chloroethane concentrations at wells MW29 and adjacent nested well MW09R as described in the LTGMP. MWH proposes to also collect a sample from nested well MW34, which is screened in the lower part of the lower aquifer, and analyze it for VOCs to determine if

VOC concentrations are increasing deeper in the lower aquifer.

- Baseline exceedance and increasing concentrations in samples collected from MW10C and MW56: MWH is preparing a lower aquifer investigation to collect data on the confining clay layer and the VOC detections observed in the samples from these wells.
- Increasing benzene concentrations in samples collected from MW53: MWH will continue monitoring the benzene concentrations at well MW53 as described in the LTGMP.

3.3 RESIDENTIAL WELL ANALYTICAL DATA

The following five residential wells were sampled during the September 2003 sampling round:

<u>Well Identity</u>	<u>Street Address</u>	<u>Water Supply</u>
PW-Y	1002 Reder Rd.	Public Water
PW-A	1007 Reder Rd.	Lower Aquifer Well
PW-B	1009 Reder Rd.	Lower Aquifer Well
PW-C	1029 Reder Rd.	Lower Aquifer Well
PW-D	1033 Reder Rd.	Lower Aquifer Well

The locations of the five residences are shown on Figure 5. The samples were analyzed for low-concentration organics (VOCs, SVOCs, PCBs, and pesticides) and inorganics (metals and cyanide). It was determined

during the sampling event that the house at 1002 Reder Rd. (PW-Y) was connected to a municipal water source during May 2003. So the sample collected for this residence was representative of the Town of Griffith Municipal water rather than the groundwater at the residence. Therefore, this well will not be recommended for sampling during 2004.

Several VOCs were detected in samples collected from the residential wells, but most detections were below the reporting limit (typically 1 µg/l) and correlated to laboratory blank contamination. The sample from PW-Y contained several chlorination by-products, such as bromodichloromethane, chloroform, and dibromo-chloromethane. These compounds are common in municipal water supplies. No detected compounds were in exceedance of MCLs. The organic compound detections are summarized in Table 7.

The SVOC results at PW-Y and PW-A showed concentrations of pentachlorophenol (15 µg/l and 2.7 µg/l, respectively) in exceedance of the MCL (1 µg/l). A few other SVOCs were detected at trace amounts below MCLs. Since the compound was detected in samples from a municipal source and a water well, a laboratory source rather than a Site source was suspected. In order to confirm the presence of pentachlorophenol at PW-Y and PW-A, these locations were resampled in November 2003. No SVOCs were detected in the samples from either well.

Several pesticides were detected at very low amounts in the residential well samples. However, none of the concentrations were above 0.01 µg/l, and all results were below MCLs. Most of the detections were related to laboratory blank contamination. No PCBs were detected in the residential well samples.

Several inorganic analytes were detected in the residential well samples. Table 8 provides the detected inorganic results along with the related MCLs, laboratory method detection limits (MDLs), and practical quantitation limits (PQLs, or reporting limits). None of the inorganic detections exceeded the MCLs, and all detections were generally similar to concentrations detected during previous residential sampling events.

SECTION 4.0 – CONCLUSIONS

The September 2003 water levels and groundwater samples were collected from wells at the ACS Site to meet the following objectives from the revised LTGMP:

- 1. Collect water level data to confirm that groundwater flow regimes in the upper and lower aquifers are consistent with historical flow patterns.**

The groundwater flow regimes determined from September 2003 data are consistent with past conditions for both the upper and lower aquifers.

- 2. Collect water level data to confirm that the Barrier Wall Extraction System (BWES) and Perimeter Groundwater Containment System (PGCS) are affecting the upper aquifer hydraulic gradients as planned.**

The data indicate the barrier wall is containing the groundwater enclosed within the wall. The regional groundwater flow from the east is diverted toward the north and south around the barrier wall. The groundwater diverted to the north is collected in the PGCS extraction trench. Groundwater diverted south flows along the barrier wall and continues to the south and southeast. These results are consistent with previous observations.

- 3. Collect and analyze groundwater samples from upgradient monitoring wells in the upper and lower aquifers to confirm background ground water quality.**

There were no detections of benzene or chloroethane in samples from upgradient monitoring wells in both the upper and lower aquifer wells.

- 4. Collect and analyze groundwater samples from upper and lower aquifer monitoring wells to provide indication of any changes in groundwater quality at downgradient boundaries.**

In the upper aquifer, benzene was detected in trace amounts (generally below the MCL) in the sample collected from downgradient monitoring well MW15. This well is located downgradient of the Griffith Landfill. The plot of data points does not exhibit an increasing trend. The concentration of chromium detected in the sample collected from downgradient well MW44 exceeded the MCL, and may be related to a secondary effect of natural attenuation.

Benzene was detected in the sample collected from monitoring well MW53 screened in the lower aquifer. Benzene concentrations have gradually increased in

samples collected from MW53 during the last several sampling events.

Sample results from residential wells located east of the Site continue to demonstrate that no Site-related contamination has impacted these wells.

5. Collect and analyze groundwater samples from the interior of the areas of contaminated groundwater to document how concentrations change with time as the remediation progresses.

Sampling data from the upper aquifer indicate that concentrations within contaminated areas outside the barrier wall continue to decrease. The concentrations of benzene and chloroethane in samples from interior wells MW06, MW45, MW48, and MW49 have decreased over the last several years. These decreasing trends in the upper aquifer are likely the

combined result of the barrier wall, the PGCS, and the ORC treatments in these areas. Additionally, occasional detections of metals (chromium, manganese, and arsenic) are evidence of the reducing environment of the plume.

In samples collected from lower aquifer interior wells, concentrations of benzene and chloroethane continue to be variable. Concentrations of benzene and chloroethane in samples from MW09R have shown decreasing trends, while chloroethane concentrations in samples from adjacent nested well MW29 have continued to slowly increase. Benzene and chloroethane concentrations in samples collected from MW10C and MW56 have remained elevated. A purging system is operating at MW10C and MW56 to capture impacted groundwater and prevent its migration in the lower aquifer.



Table 1
Groundwater Elevation Data - September 2003
American Chemical Service NPL Site
Griffith, Indiana

Monitoring Point Designation	Reference Points		September 15, 2003			Notes
	East	North	TOC	Level	Elevation	
Upper Aquifer Monitoring Wells						
MW06	5298	5520	655.28	23.37	631.91	
MW11	6377	7329	640.47	8.05	632.42	
MW12	6019	6352	642.74	10.17	632.57	
MW13	5050	7814	634.08	4.22	629.86	
MW14	4882	6995	638.56	9.95	628.61	
MW15	4721	5003	637.89	6.75	631.14	
MW17	5656	5677	647.10	14.97	632.13	
MW19	5231	4943	635.78	4.73	631.05	
MW37	5395	7976	636.78	6.70	630.08	
MW38	5903	8216	636.51	6.97	629.54	
MW39	6253	7947	637.77	6.94	630.83	
MW40	6349	6831	639.46	7.02	632.44	
MW41	6242	4517	632.74	6.44	626.30	
MW42	6264	3808	632.32	6.88	625.44	
MW43	5880	3719	633.56	7.52	626.04	
MW44	5390	4303	633.04	4.86	628.18	
MW45	5830	4388	635.35	6.87	628.48	
MW46	4526	7424	633.32	3.20	630.12	
MW47	5958	5084	640.54	8.18	632.36	
MW48	5669	7814	636.36	6.15	630.21	
MW49	5551	7650	637.00	6.52	630.48	
M4S	4953	6537	633.42	4.15	629.27	

Notes:

All depth measurements and elevations are in units of feet.

Elevation is in feet above mean sea level.

TOC = top of casing

Table 1
Groundwater Elevation Data - September 2003
American Chemical Service NPL Site
Griffith, Indiana

Monitoring Point Designation	Reference Points		September 15, 2003			Notes
	East	North	TOC	Level	Elevation	
Staff Gauges & Piezometers						
P13	4878	5735	651.20	18.82	632.38	
P17	4584	6006	654.64	22.20	632.44	
P23	4689	7018	636.18	7.17	629.01	
P25	5131	7510	635.01	5.78	629.23	
P26	4764	7309	634.23	4.42	629.81	
P27	4904	7020	639.70	10.70	629.00	
P28	5883	7486	644.53	12.95	631.58	
P31	5480	7159	641.03	8.25	632.78	
P32	5746	7026	642.32	10.60	631.72	
P36	5410	6851	645.89	13.80	632.09	
P40	5931	7241	638.77	6.41	632.36	
P41	5663	7377	637.23	5.33	631.90	
P49	5145	6949	638.98	8.11	630.87	
SG8R	5409	5252	634.70	3.17	631.53	
SG8R2	5409	5242	632.67	NM	NM	Not measured since SG8R was measured.
SG5	5464	7713	633.36	DRY	DRY	
SG13	4819	7209	631.53	4.48	630.01	TOC is the 6.0' mark on staff gauge
SG14	5109	6523	635.44	DRY	DRY	TOC is the 6.0' mark on staff gauge
PGCS Piezometer Sets						
P81	5577	7581	636.19	5.87	630.32	
P82	5577	7572	635.77	5.44	630.33	
P83	5577	7561.6	635.95	5.67	630.28	
P84	5322	7603	634.35	4.91	629.44	
P85	5326	7594	634.08	4.66	629.42	
P86	5329	7585	634.41	4.95	629.46	
P87	5121	7466	633.88	4.58	629.30	
P88	5130	7460	633.90	4.70	629.20	
P89	5137	7454	634.02	4.80	629.22	
P90	4881	7152	634.45	5.22	629.23	
P91	4889	7145	634.59	5.47	629.12	
P92	4896	7138.1	633.87	4.66	629.21	

Notes:

All depth measurements and elevations are in units of feet.

TOC = top of casing

Elevation is in feet above mean sea level.

Table 1
Groundwater Elevation Data - September 2003
American Chemical Service NPL Site
Griffith, Indiana

Monitoring Point Designation	Reference Points			September 15, 2003		Notes
	East	North	TOC	Level	Elevation	
BWES Water Level and Piezometer Pairs						
P93	5136	7067	638.79	CNM	CNM	Does not exist - Scheduled to be re-installed in 2003
P94	5146	7061	638.98	CNM	CNM	Does not exist - Scheduled to be re-installed in 2003
P95	5146	6532	638.58	9.10	629.48	
P96	5156	6537	641.26	15.14	626.12	
P105	5885	6678	638.86	6.24	632.62	
P106	5871	6685	638.10	7.10	631.00	
P107	5766	7339	637.42	5.85	631.57	
P108	5757	7324	638.13	6.72	631.41	
P109	5740	6387	644.30	11.56	632.74	
P110	5705	6382	647.68	20.12	627.56	
P111	5551	5950	650.03	17.72	632.31	
P112	5525	5960	653.36	27.04	626.32	
P113	5309	5693	657.53	31.30	626.23	
ORCPZ102	5331	5612	652.47	20.50	631.97	
P114	5035	5729	653.69	27.38	626.31	
P115	4970	5708	652.50	20.42	632.08	
P116	5031	6087	646.26	20.42	625.84	
P117	5014	6087	643.93	12.70	631.23	
P118	5402	6539	645.52	18.94	626.58	

Notes:

All depth measurements and elevations are in units of feet.

Elevation is in feet above mean sea level.

TOC = top of casing

CNM = could not measure (reason given under "Notes" column)

Table 1
Groundwater Elevation Data - September 2003
American Chemical Service NPL Site
Griffith, Indiana

Monitoring Point Designation	Reference Points			September 15, 2003		Notes
	East	North	TOC	Level	Elevation	
Lower Aquifer Wells						
MW07	6113	6732	641.46	20.44	621.02	
MW08	5934	7506	640.43	19.69	620.74	
MW09R	4893	6990	639.05	18.05	621.00	
MW10C	5229	7554	637.45	CNM	CNM	Could not measure due to pump in well
MW23	4717	7404	633.31	12.31	621.00	
MW24	4596	8033	635.22	14.49	620.73	
MW28	5657	5695.6	648.77	27.22	621.55	
MW50	5269	5383	649.43	27.82	621.61	
MW51	5198	7767	634.16	13.55	620.61	
MW52	4996	7814	632.74	11.99	620.75	
MW54R	5589.8	7592.2	637.51	16.62	620.89	
M4D	4949	6538	633.32	12.20	621.12	

Notes:

All depth measurements and elevations are in units of feet.

Elevation is in feet above mean sea level.

TOC = top of casing

CNM = could not measure (reason given under "Notes" column)

Table 2
Field Parameter Data - September 2003
American Chemical Service NPL Site
Griffith, Indiana

Well ID	Field Parameters						Oxidation-Reduction Potential (mV)
	pH (std. units)	Electrical Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)		
Upper Aquifer Monitoring Wells							
MW06	6.85	4.310	19.6	35	0.1	48	
MW11	6.14	0.264	14.8	112	0.0	117	
MW14	5.30	0.242	16.1	80	0.0	155	
MW15	7.40	3.850	17.2	5	0.0	-103	
MW17	6.37	0.732	16.9	14	3.1	-13	
MW19	7.69	4.910	18.0	77	0.0	-101	
MW42	6.37	1.400	17.5	82	0.0	86	
MW43	6.38	1.300	17.9	420	0.0	-23	
MW44	7.30	0.754	18.2	103	1.9	-129	
MW45	6.85	1.400	21.5	47	0.0	-112	
MW48	6.60	0.848	16.2	58	5.5	-104	
MW49	6.58	0.791	15.7	88	0.0	-94	
Residential Wells							
PW-A	7.30	0.738	15.4	0	1.8	-120	
PW-B	7.46	0.730	17.1	0	1.7	-158	
PW-C	7.46	0.777	16.0	14	1.8	-141	
PW-D	6.99	0.814	14.6	2	1.8	-135	
PW-Y	6.95	0.296	20.8	0	7.7	248	

Notes:

Values are those recorded upon stabilization during groundwater purging

mS/cm = millSiemens per centimeter

°C = Degrees Centigrade

mV = millivolts

NTU = nephelometric turbidity units

mg/l = milligrams per liter

Table 2
Field Parameter Data - September 2003
American Chemical Service NPL Site
Griffith, Indiana

Well ID	Field Parameters					
	pH (std. units)	Electrical Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation- Reduction Potential (mV)
Lower Aquifer Monitoring Wells						
MW08	7.62	0.460	13.9	13	7.4	-178
MW09R	7.03	0.787	14.4	82	2.7	-152
MW10C	7.63	1.900	14.2	999	0.0	-134
MW23	7.23	1.170	13.8	156	0.0	-82
MW28	7.23	0.792	15.2	28	2.5	-106
MW29	6.81	0.769	12.9	50	0.0	-97
MW30	7.85	0.860	13.3	321	0.0	-141
MW31	7.47	0.649	13.6	24	2.2	-158
MW32	7.44	0.790	13.0	42	2.1	-148
MW33	7.36	2.300	13.0	0	0.0	-86
MW51	7.50	1.200	13.7	45	1.2	-130
MW52	7.64	0.893	13.2	23	0.0	-113
MW53	7.16	2.540	11.8	29	0.0	-78
MW54R	8.21	1.400	14.6	331	0.0	-166
MW55	7.96	1.200	13.2	88	0.0	-104
MW56	7.13	0.766	13.7	28	0.0	-176

Notes:

Values are those recorded upon stabilization during groundwater purging

mS/cm = millSiemens per centimeter

°C = Degrees Centigrade

mV = millivolts

NTU = nephelometric turbidity units

mg/l = milligrams per liter

Table 3
Summary of Groundwater Sampling Activities - September 2003
American Chemical Service, Inc. NPL Site
Griffith, Indiana

Monitoring Well ID	Location with Respect to Area of Groundwater Contamination	Indicator VOCs	Metals
Upper Aquifer Monitoring Wells			
MW06	Interior	X	
MW11	Upgradient	X	
MW12	Upgradient		
MW13	Downgradient ¹		
MW14	Downgradient	X	
MW15	Downgradient	X	
MW17	Upgradient	X	
MW19	Interior	X	
MW37	Downgradient		
MW39	Transgradient		
MW42	Downgradient	X	X
MW43	Downgradient	X	
MW44	Downgradient	X	X
MW45	Interior	X	
MW48	Interior	X	
MW49	Interior	X	

Notes:

X - Indicates sample was analyzed for selected parameter.

VOCs - Includes the indicator parameters 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, benzene, chloroethane, cis-1,2-dichloroethene, tetrachloroethene, trichloroethene, trans-1,2-dichloroethene, and vinyl chloride.

MW42 and MW44 were analyzed for metals due to exceedances observed in March 2003.

MW12, MW13, MW37, MW39 are sampled annually during the 1st Quarter event.

¹ - MW13 was originally an interior well.

Table 3
Summary of Groundwater Sampling Activities - September 2003
American Chemical Service, Inc. NPL Site
Griffith, Indiana

Monitoring Well ID	Location with Respect to Area of Groundwater Contamination	Indicator VOCs	Metals
Lower Aquifer Monitoring Wells			
MW08	Downgradient	X	
MW09R	Interior	X	
MW10C	Interior	X	
MW23	Downgradient	X	
MW28	Upgradient	X	
MW29	Interior	X	
MW30	Downgradient	X	
MW31	Downgradient	X	
MW32	Downgradient	X	
MW33	Downgradient	X	
MW51	Downgradient	X	
MW52	Downgradient	X	
MW53	Downgradient	X	
MW54R	Downgradient	X	
MW55	Downgradient	X	
MW56	Interior	X	

Notes:

X - Indicates sample was analyzed for selected parameter.

VOCs - Includes the indicator parameters 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, benzene, chloroethane, cis-1,2-dichloroethene, tetrachloroethene, trichloroethene, trans-1,2-dichloroethene, and vinyl chloride.

Table 4
Summary of Organic Compound Detections in Samples from Upper Aquifer Monitoring Wells - September 2003
American Chemical Service NPL Site
Griffith, Indiana

Parameter (ug/l)	MW06		MW11		MW14		MW15		MW17		MW19			
	Interior		Upgradient		Downgradient		Downgradient		Upgradient		Interior			
	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV		
VOCs														
1,1-Dichloroethane	5	U/		5	U/		5	U/		5	U/			
1,1-Dichloroethene	5	U/		5	U/		5	U/		5	U/			
1,2-Dichloroethane	5	U/		5	U/		5	U/		5	U/			
Benzene	39	D/	320	5	U/		5	U/	2.8	J/	10	2.3	J/	10
Chloroethane	5	U/		5	U/		5	U/	5	U/		20		20
cis-1,2-Dichloroethene	5	U/		5	U/		5	U/	5	U/		5	U/	
Tetrachloroethene	5	U/		5	U/		5	U/	5	U/UJ		5	U/	
trans-1,2-Dichloroethene	5	U/		5	U/		5	U/	5	U/		5	U/	
Trichloroethene	5	U/		5	U/		5	U/	5	U/		5	U/	
Vinyl Chloride	5	U/		5	U/		5	U/	5	U/		5	U/	

Notes:

ug/l = micrograms per liter.

BV = Baseline Value (only provided for detected compounds).

X/ = Data qualifier added by laboratory.

/X = Data qualifier added by data validator.

U = Compound was analyzed for but not detected.

J = Estimated value; concentration is below reporting limit.

D = Results based on diluted sample.

Bold result indicates the compound was detected.

Bold and Boxed results indicates an exceedance of the compound's baseline value.

Table 4
Summary of Organic Compound Detections in Samples from Upper Aquifer Monitoring Wells - September 2003
American Chemical Service NPL Site
Griffith, Indiana

Parameter (ug/l)	MW42		MW43		MW44		MW45		MW48		MW49	
	Downgradient		Downgradient		Downgradient		Interior		Interior		Interior	
	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV
VOCs												
1,1-Dichloroethane	5	U/		5	U/		5	U/		83	U/	
1,1-Dichloroethene	5	U/		5	U/		5	U/		83	U/	
1,2-Dichloroethane	5	U/		5	U/		5	U/		83	U/	
Benzene	5	U/		5	U/		5	U/	1,045	1,800	9,500	400 /J
Chloroethane	5	U/		5	U/		5	U/		83	U/	38 715
cis-1,2-Dichloroethene	5	U/		5	U/		5	U/		83	U/	17 U/
Tetrachloroethene	5	U/		5	U/		5	U/		83	U/	17 U/
trans-1,2-Dichloroethene	5	U/		5	U/		5	U/		83	U/	17 U/
Trichloroethene	5	U/		5	U/		5	U/		83	U/	17 U/
Vinyl Chloride	5	U/		5	U/		5	U/		83	U/	17 U/

Notes:

ug/l = micrograms per liter.

BV = Baseline Value (only provided for detected compounds).

X/J = Data qualifier added by laboratory.

/X = Data qualifier added by data validator.

U = Compound was analyzed for but not detected.

J = Estimated value; concentration is below reporting limit.

D = Results based on diluted sample.

Bold result indicates the compound was detected.

Bold and Boxed results indicates an exceedance of the compound's baseline value.

Table 5
Summary of Inorganic Compound Detections in Samples from Monitoring Wells MW42 and MW44 - September 2003
American Chemical Service NPL Site
Griffith, Indiana

Analyte	U.S. EPA MCL	MDL (ug/l)	PQL (ug/l)	MW42				MW44				
				Mar 03	LQ	DV	Sept 03	LQ	DV	Mar 03	LQ	DV
Aluminum	NA	29.5	100		U		178	B	UB	88.7	B	UB
Antimony	6	1.8	10		U			U		24.6		
Arsenic	50	3.6	10		U			U		302		15.2
Barium	2,000	1.3	10	42.7		B	54.4			1,330		B
Beryllium	4	0.2	5		U			U			U	
Cadmium	5	0.3	5		U			U			U	
Calcium	NA	12.3	1,000	290,000			227,000		B	288,000		98,900
Chromium	100	0.4	5	2.1	B*	UBJ	24.2			6,180	*	BJ
Cobalt	NA	0.9	5	47.2			80.7				U	I
Copper	1,300	1.2	5	5.9	UB			U		83		4.5
Iron	NA	12.2	100	3,180		B	1,950		B	249,000		B
Lead	15	1.3	3	1.9	B		1.5	B			U	1.5
Magnesium	NA	3.9	1,000	101,000		B	77,500		B	96,300		B
Manganese	NA	1.8	10	7,100		B	4710		B	300		B
Mercury	2	0.1	0.2		U			U			U	
Nickel	NA	1.2	5	172			62.2			204		7.3
Potassium	NA	26.9	1,000	3,070	E	J	3,620	BE	UBJ	2,100	E	J
Selenium	50	2.1	5	5.3		B	3.1	B		9.1		UB
Silver	NA	0.8	0.5		U			U			U	
Sodium	NA	154	2,000	26,600		B	19,700	E	BJ	210,000		B
Thallium	2	3.8	10	5.4	BN	UBJ		U		15.7	N	UBJ
Vanadium	NA	0.7	20	0.92	B		3	B		21.9		2.5
Zinc	NA	0.6	20	68.3			27.9		UB	29.8		18.9
											B	UB

Notes:

All results in micrograms per liter (ug/l).
 Sept 03 results have not been validated yet.
Bold results exceed MCL
 MCL = Maximum Contaminant Level
 NA = MCL does not exist for this analyte
 MDL = Method Detection Limit (Approximate)
 PQL = Practical Quantitation Limit
 LQ = Data qualifier added by laboratory
 DV = Data qualifier added by validation

LQ Flags

U = Indicates compound not detected above the MDL

B = Compound was detected above the MDL but below the PQL.

It is considered an estimated concentration.

E = Serial dilution not within 10%. Concentration is estimated.

N = Sample spike recovery is outside of control limits.

* = Sample and sample duplicate results are not within control limits.

DV Flags

B = Compound was detected in sample and in associated blank.

J = Indicates an estimated value.

UB = Compound not detected above indicated concentration due to blank contamination

UJ = Compound not detected, and detection limit is an estimated value.

Table 6
Summary of Organic Compound Detections in Samples from Lower Aquifer Monitoring Wells- September 2003
American Chemical Service NPL Site
Griffith, Indiana

Parameter (ug/l)	MW08		MW09R		MW10C		MW23		MW28			
	Downgradient		Interior		Interior		Downgradient		Upgradient			
	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV		
VOCs												
1,1-Dichloroethane	5	U/		5	U/		5	U/		5	U/	
1,1-Dichloroethene	5	U/		5	U/UJ		5	U/		5	U/	
1,2-Dichloroethane	5	U/		5	U/		5	U/		5	U/	
Benzene	5	U/		6.6	310	1,800	D/	150	5	U/	5	U/
Chloroethane	5	U/		61	2,900	60	420	5	U/		5	U/
cis-1,2-Dichloroethene	5	U/		5	U/		5	U/		5	U/	
Tetrachloroethene	5	U/UJ		5	U/		5	U/		5	U/UJ	
trans-1,2-Dichloroethene	5	U/		5	U/		5	U/		5	U/	
Trichloroethene	5	U/		5	U/		5	U/		5	U/	
Vinyl Chloride	5	U/		5	U/		5	U/		5	U/	

Notes:

ug/l = micrograms per liter.

BV = Baseline Value (only provided for detected compounds).

X/ = Data qualifier added by laboratory.

/X = Data qualifier added by data validator.

U = Compound was analyzed for but not detected.

J = Estimated value; concentration is below reporting limit.

D = Results based on diluted sample.

Bold result indicates the compound was detected.

Bold and Boxed results indicates an exceedance of the compound's baseline value.

Table 6
Summary of Organic Compound Detections in Samples from Lower Aquifer Monitoring Wells- September 2003
American Chemical Service NPL Site
Griffith, Indiana

Parameter (ug/l)	MW29		MW30		MW31		MW32		MW33		MW51	
	Interior		Downgradient		Downgradient		Downgradient		Downgradient		Downgradient	
	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV
VOCs												
1,1-Dichloroethane	5	U/		5	U/		5	U/		5	U/	
1,1-Dichloroethene	5	U/		5	U/		5	U/		5	U/	
1,2-Dichloroethane	5	U/		5	U/		5	U/		5	U/	
Benzene	1.4	J/	10	5	U/		5	U/		5	U/	
Chloroethane	25		10	5	U/		5	U/		5	U/	
cis-1,2-Dichloroethene	5	U/		5	U/		5	U/		5	U/	
Tetrachloroethene	5	U/		5	U/UJ		5	U/UJ		5	U/UJ	
trans-1,2-Dichloroethene	5	U/		5	U/		5	U/		5	U/	
Trichloroethene	5	U/		5	U/		5	U/		5	U/	
Vinyl Chloride	5	U/		5	U/		5	U/		5	U/	

Notes:

ug/l = micrograms per liter.

BV = Baseline Value (only provided for detected compounds).

X/ = Data qualifier added by laboratory.

/X = Data qualifier added by data validator.

U = Compound was analyzed for but not detected.

J = Estimated value; concentration is below reporting limit.

D = Results based on diluted sample.

Bold result indicates the compound was detected.

Bold and Boxed results indicates an exceedance of the compound's baseline value.

Table 6

Page 3 of 3

Summary of Organic Compound Detections in Samples from Lower Aquifer Monitoring Wells- September 2003
American Chemical Service NPL Site
Griffith, Indiana

Parameter (ug/l)	MW52		MW53		MW54R		MW55		MW56	
	Downgradient		Downgradient		Downgradient		Downgradient		Interior	
	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV	Sep-03	BV
VOCs										
1,1-Dichloroethane	5	U/			5	U/			5	U/
1,1-Dichloroethene	5	U/			5	U/			5	U/
1,2-Dichloroethane	5	U/			5	U/			5	U/
Benzene	5	U/			7.9	10	5	U/		1,200 D/ NA
Chloroethane	5	U/			5	U/			5	U/
cis-1,2-Dichloroethene	5	U/			5	U/			5	U/
Tetrachloroethene	5	U/			5	U/			5	U/
trans-1,2-Dichloroethene	5	U/			5	U/			5	U/
Trichloroethene	5	U/			5	U/			5	U/
Vinyl Chloride	5	U/			5	U/			5	U/

Notes:

ug/l = micrograms per liter.

BV = Baseline Value (only provided for detected compounds).

X/ = Data qualifier added by laboratory.

/X = Data qualifier added by data validator.

U = Compound was analyzed for but not detected.

J = Estimated value; concentration is below reporting limit.

D = Results based on diluted sample.

Bold result indicates the compound was detected.

Bold and Boxed results indicates an exceedance of the compound's baseline value.

Table 7
Summary of Organic Compound Detections in Samples from Residential Wells - September 2003
American Chemical Service NPL Site
Griffith, Indiana

Parameter	US/EPA MCL	PWA			PW-B			PW-C			PW-D			PW-Y			
		Sep-03	TRL	Nov-03	RL	Sep-03	TRL	Sep-03	TRL	Sep-03	TRL	Sep-03	TRL	Sep-03	TRL	Nov-03	TRL
Volatile Organic Compounds																	
1,1,2-Trichloroethane	5							0.78	0.5								
4-Methyl-2-pentanone	NA													1.5	J/	3	
Acetone	NA	1.5	J/	3		1.4	J/	3	1.2	J/	3	1.8	J/	3	1.8	JB/UB	3
Bromodichloromethane	NA													5.5		0.5	
Carbon Disulfide	NA							0.19	J/	0.5	0.08	J/	0.5				
Chlorobenzene	100	0.057	J/	0.5		0.04	J/	0.5	0.04	J/	0.5			0.036	JB/UB	0.5	
Chloroform	NA	0.035	J/	0.5				0.063	J/	0.5				8.1		0.5	
Dibromochloromethane	NA													3.1		0.5	
Ethylbenzene	700													0.057	JB/UB	0.5	
Methylene Chloride	NA	0.48	JB/UB	0.5		0.45	JB/UB	0.5	0.53	B/UB	0.5	0.52	B/UB	0.5	0.62	B/UB	0.5
Toluene	1,000	0.43	JB/UB	0.5		0.35	JB/UB	0.5	0.31	JB/UB	0.5	0.33	JB/UB	0.5	0.21	JB/UB	0.5
Tetrachloroethene	5	0.043	J/	0.5								0.046	J/	0.5	0.055	JB/UB	0.5
Xylene (total)	10,000	0.091	J/	0.5		0.068	J/	0.5						0.36	JB/UB	0.5	
Semi-Volatile Organic Compounds																	
Bis(2-ethylhexyl)phthalate	6													1.2	JB/UB		
Pentachlorophenol	1	15												2.7	J/		
Phenanthrene	NA	1.3	J/														
Pyrene	NA	0.73	J/														

Notes:

All results in micrograms per liter (ug/l).

A blank cell indicates parameter not detected.

Only detected parameters listed.

MCL = Maximum Contaminant Level

Bold result indicates exceedance of MCL.

Gray shaded boxes indicate parameters not analyzed

NA = MCL does not exist for this analyte

RL = Reporting Limit

X/ = Data qualifier added by laboratory

/X = Data qualifier added by validation

J = Estimated value; concentration detected is below reporting limit

B = Indicates analyte detected in laboratory blank

UB = Analyte is not detected at or above the indicated concentration due to blank contamination.

Table 7
Summary of Organic Compound Detections in Samples from Residential Wells - September 2003
American Chemical Service NPL Site
Griffith, Indiana

Parameter	U.S. EPA MCL	PW-A				PW-B				PW-C				PW-D				PW-Y				
		Sep-03	RL	Nov-03	RL	Sep-03	RL	Sep-03	RL	Sep-03	RL	Sep-03	RL	Sep-03	RL	Sep-03	RL	Nov-03	RL	Nov-03	RL	
PCBs/Pesticides																						
4,4'-DDT	NA	0.0003	JP/J	0.02																		
alpha-Chlordane	2	0.0019	BJP/UBJ	0.01				0.0031	BJP/UBJ	0.01	0.0008	BJP/UBJ	0.01	0.0012	BJP/UBJ	0.01						
alpha-BHC	0.2							0.0011	JP/J	0.01												
beta-BHC	0.2														0.00086	BJP/UBJ	0.01	0.0027	BJP/UBJ	0.01		
delta-BHC	0.2																0.004	JP/J	0.01			
Dieldrin	NA	0.00093	BJP/UBJ	0.02				0.0012	BJ/UB	0.02	0.00026	BJP/UBJ	0.02	0.0012	BJP/UBJ	0.02	0.0013	BJP/UBJ	0.02			
Endosulfan I	NA																	0.0022	J/	0.01		
Endosulfan II	NA																	0.0022	J/	0.02		
Endosulfan sulfate	NA	0.00045	JP/J	0.02														0.0009	JP/J	0.02		
Endrin	2	0.0017	J/J	0.02																		
Endrin aldehyde	NA	0.00099	JP/J	0.02																		
Endrin ketone	NA	0.00098	BJP/UBJ	0.02				0.0046	BJP/UBJ	0.02	0.00046	BJP/UBJ	0.02	0.00029	BJP/UBJ	0.02	0.002	BJP/UBJ	0.02			
gamma-Chlordane	2	0.00058	JP/J	0.01							0.00042	JP/J	0.01									

Notes:

All results in micrograms per liter (ug/l).

A blank cell indicates parameter not detected.

Only detected parameters listed.

MCL = Maximum Contaminant Level

Gray shaded boxes indicate parameters not analyzed

NA = MCL does not exist for this analyte

RL = Reporting Limit

X/ = Data qualifier added by laboratory

/X = Data qualifier added by validation

J = Estimated value; concentration detected is below reporting limit

B = Indicates analyte detected in laboratory blank

UB = Analyte is not detected at or above the indicated concentration due to blank contamination.

P = The Relative Percent Difference between the two GC column values is greater than 40%. The higher value has been reported.

Table 8
Summary of Inorganic Compound Detections in Samples from Residential Wells - September 2003
American Chemical Services NPL Site
Griffith, Indiana

Analyte	US EPA MCL	MDL (ug/l)	PQL (ug/l)	PW-A		PW-B		PW-C		PW-D		PW-Y			
				Result	LQ	DV	PW-B	LQ	DV	PW-C	LQ	DV	PW-D	LQ	DV
Aluminum	NA	69.6	200											70.1	B
Antimony	6	1.9	10												
Arsenic	50	2.1	10												
Barium	2,000	1.3	10	140		B	136		UB	170		B	160		24.8
Beryllium	4	0.2	5												
Cadmium	5	0.3	5												
Calcium	NA	12.3	5,000	87,400		B	86,700		B	89,100		B	96,100		B
Chromium	100	1	5				1.4	B	UB	1	B	UB			
Cobalt	NA	0.8	5												
Copper	1,300	1.3	5	4.0	B	UB	48.1		B						56.7
Cyanide	200	0.6	10												2.2
Iron	NA	12.2	100	2,200			3,080			2,640			2,440		24
Lead	15	1.1	3	1.5	B	UB	12.9		B						2.6
Magnesium	NA	3.9	5,000	45,600		B	41,700		B	51,400		B	50,400		B
Manganese	NA	1.8	10	36.9		B	59.5		B	36.9		B	36.8		3.0
Mercury	2	0.1	0.2												
Nickel	NA	1	5				1.1	B							
Potassium	NA	26.9	5,000	3,230	B	UB	2,730	B	UB	3,370	B	UB	3,310	B	UB
Selenium	50	2.5	5	2.5	UN		2.5	UN		2.5	UN		2.5	UN	2.5
Silver	NA	0.9	5				1	B							
Sodium	NA	154	5,000	20,400		B	20,200		B	19,700		B	19,600		B
Thallium	2	3.7	10	3.7	UN	UJ	3.7	UN	UJ	3.7	UN	UJ	3.7	UN	UJ
Vanadium	NA	0.3	20	1.7	B	UB	1.7	B	UB	2	B	UB	2.1	B	UB
Zinc	NA	2.2	20	22.2	E	UBJ	25.3	E	UBJ	9.8	BE	UBJ	16.7	BE	UBJ
														273	E
															J

Notes:

All results in micrograms per liter (ug/l).

A blank cell indicates parameter not detected.

MCL = Maximum Contaminant Level

NA = MCL does not exist for this analyte

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

LQ = Data qualifier added by laboratory

DV = Data qualifier added by validation

LQ Flags

U = Compound was not detected above the PQL.

N = Sample spike recovery was outside of control limits

E = Serial dilution not within 10%. Concentration is estimated.

B = Compound was detected above the MDL but below the PQL.

It is considered an estimated concentration.

DV Flags

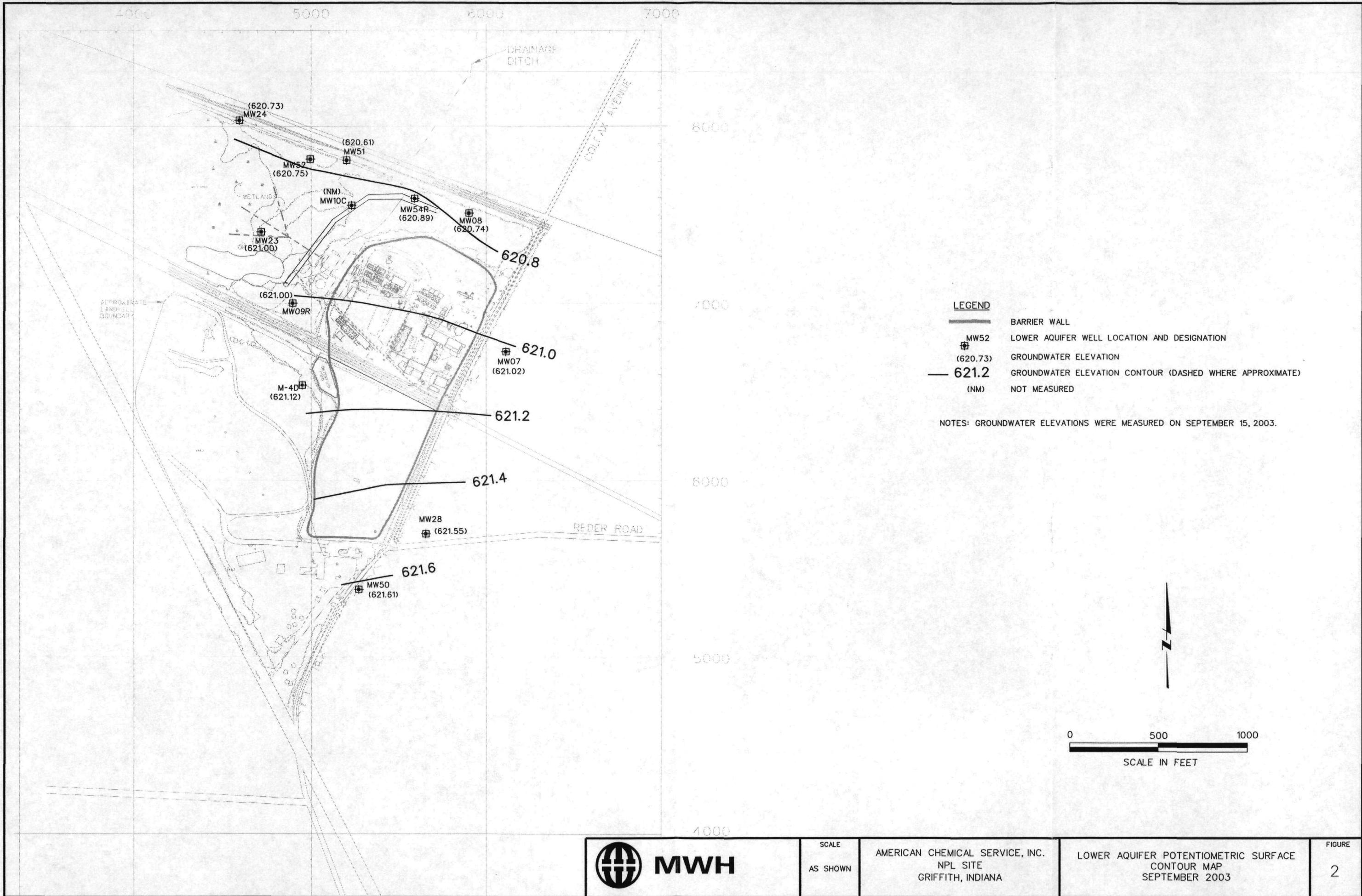
B = Compound was detected in sample and in associated blank.

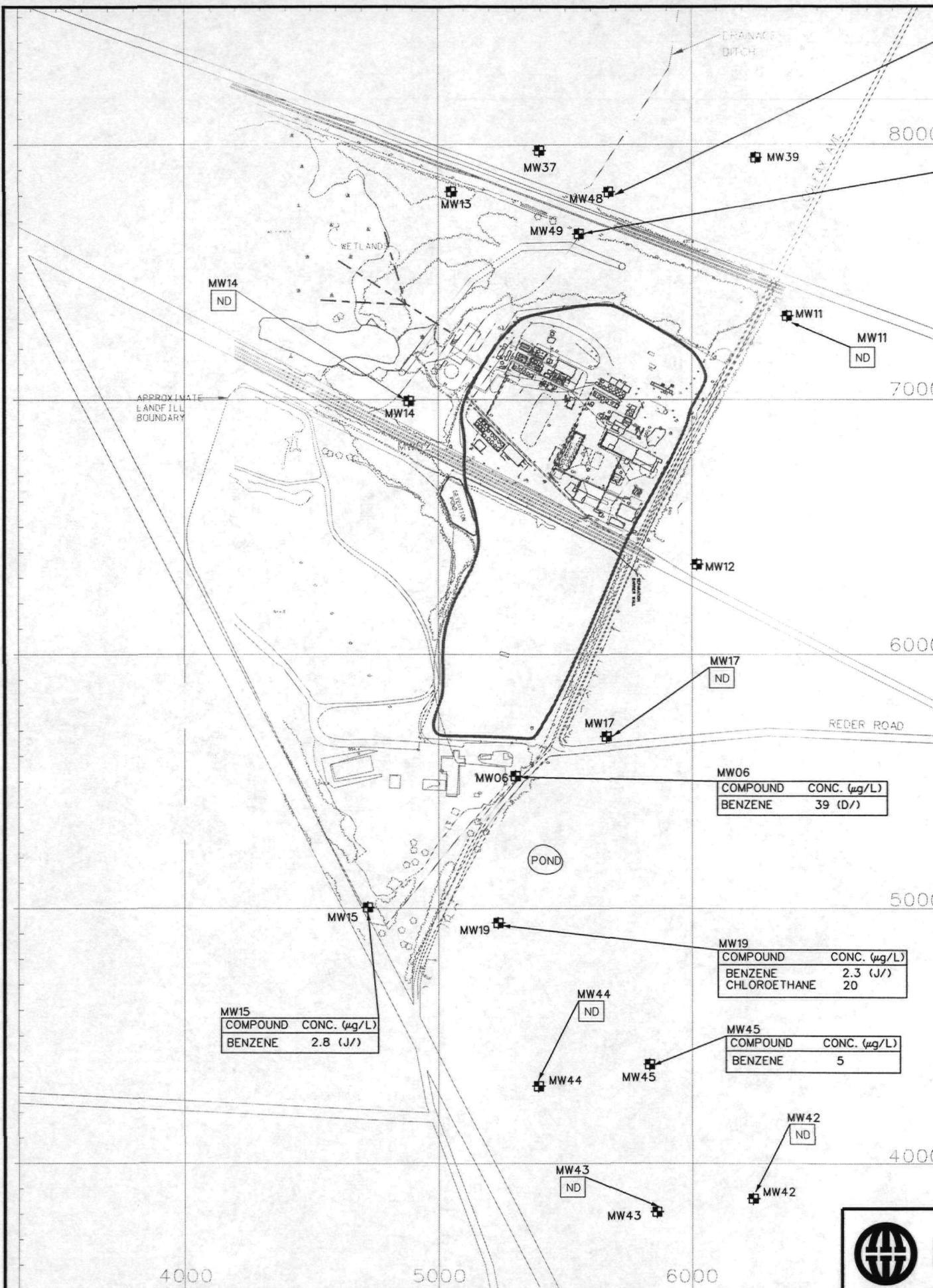
J = Indicates an estimated value.

UB = Compound not detected above indicated concentration due to blank contamination

UJ = Compound not detected, and detection limit is an estimated value.







MW48	COMPOUND	CONC. ($\mu\text{g}/\text{L}$)
	BENZENE	1,800

MW49	COMPOUND	CONC. ($\mu\text{g}/\text{L}$)
	BENZENE	400 (J)
	CHLOROETHANE	38

LEGEND

- MW11: UPPER AQUIFER WELL LOCATION AND DESIGNATION
- : BARRIER WALL
- : PERIMETER GROUND WATER CONTAINMENT SYSTEM
- $\mu\text{g}/\text{L}$: MICROGRAMS PER LITER
- (J): INDICATES AN ESTIMATED VALUE (LAB/VALIDATED)
- (D): INDICATES SAMPLE WAS DILUTED (LAB/VALIDATED)
- ND: NO COMPOUNDS DETECTED

NOTES:

1. CONCENTRATIONS IN BOLD EXCEEDED BASELINE VALUES.
2. MW12, 13, 37, 39 WERE NOT SAMPLED DURING SEPTEMBER.



0 500 1000

SCALE IN FEET



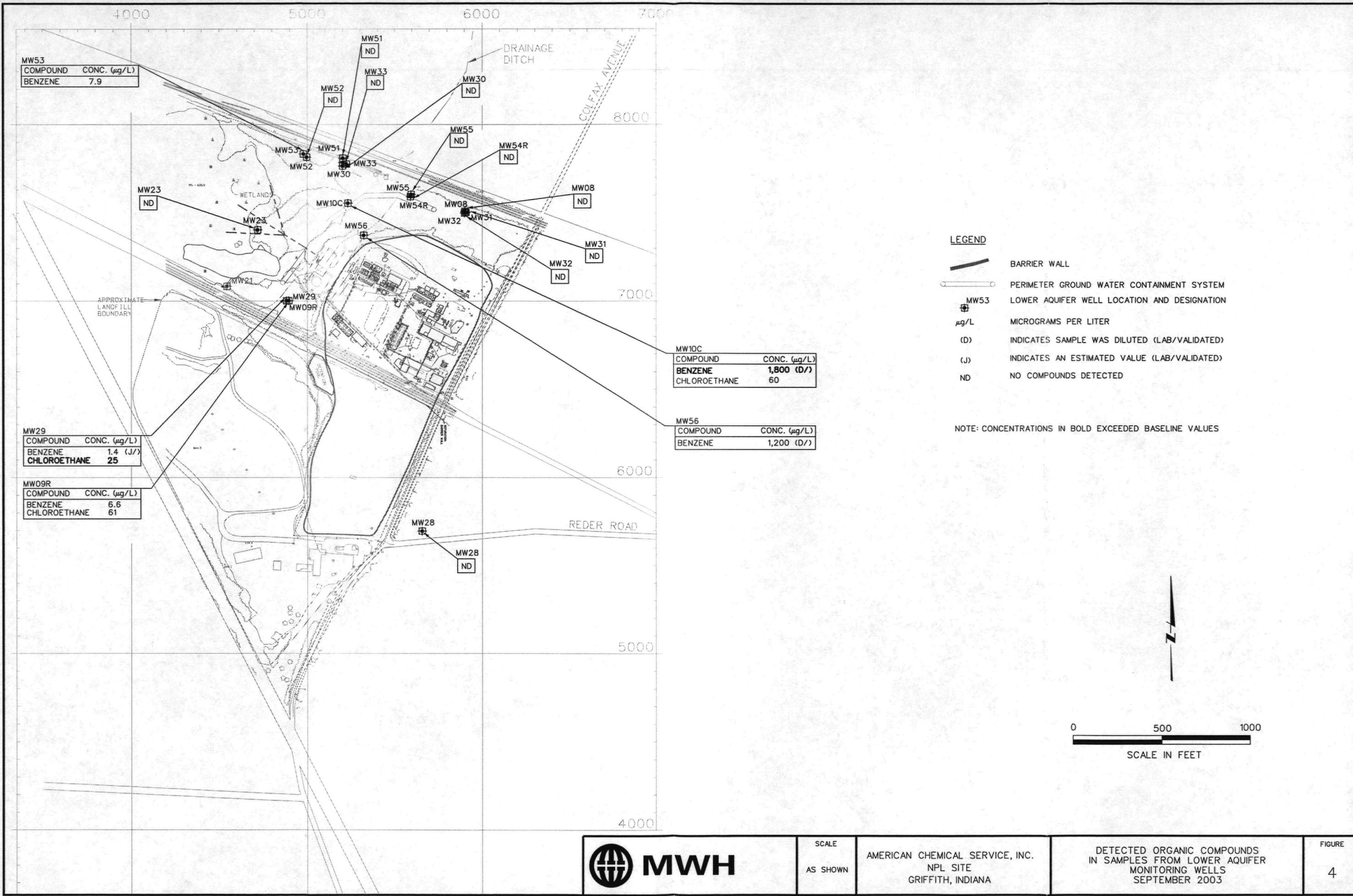
SCALE
AS SHOWN

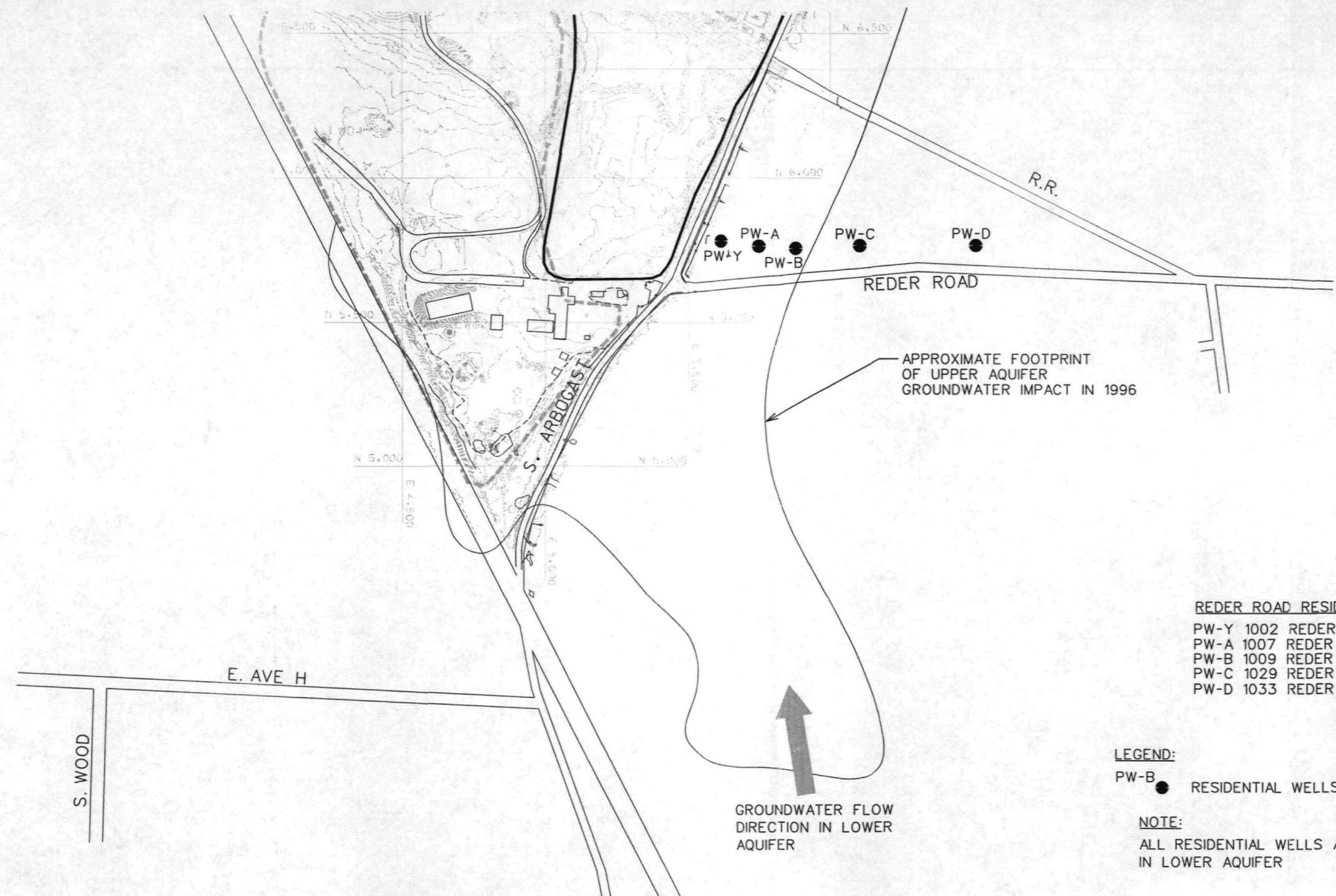
AMERICAN CHEMICAL SERVICE, INC.
NPL SITE
GRIFFITH, INDIANA

DETECTED ORGANIC COMPOUNDS
IN SAMPLES FROM UPPER AQUIFER
MONITORING WELLS
SEPTEMBER 2003

FIGURE

3





REDER ROAD RESIDENTIAL WELLS

PW-Y 1002 REDER ROAD
 PW-A 1007 REDER ROAD
 PW-B 1009 REDER ROAD
 PW-C 1029 REDER ROAD
 PW-D 1033 REDER ROAD

LEGEND:

PW-B ● RESIDENTIAL WELLS

NOTE:

ALL RESIDENTIAL WELLS ARE SCREENED
IN LOWER AQUIFER

0 500 1000

SCALE IN FEET







Appendix A
Comparison of September 2003 Results to Maximum Baseline Concentrations

Monitoring Wells
VOC Results

Inorganic Results

Residential Wells
VOC Results

SVOC Results

SVOC Results (Resampling)

PCB and Pesticide Results

Inorganic Results

Monitoring Well Volatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Service NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
MW-06	1,1-Dichloroethane	UG/L	21		U		5
MW-06	1,1-Dichloroethene	UG/L	50		U		5
MW-06	1,2-Dichloroethane	UG/L	50		U		5
MW-06	Benzene	UG/L	320	39			5
MW-06	Chloroethane	UG/L	720		U		5
MW-06	cis-1,2-Dichloroethene	UG/L			U		5
MW-06	Tetrachloroethene	UG/L	50		U		5
MW-06	trans-1,2-Dichloroethene	UG/L			U		5
MW-06	Trichloroethene	UG/L	50		U		5
MW-06	Vinyl chloride	UG/L	50		U		5
MW-08	1,1-Dichloroethane	UG/L	10		U		5
MW-08	1,1-Dichloroethene	UG/L	10		U		5
MW-08	1,2-Dichloroethane	UG/L	10		U		5
MW-08	Benzene	UG/L	10		U		5
MW-08	Chloroethane	UG/L	10		U		5
MW-08	cis-1,2-Dichloroethene	UG/L			U		5
MW-08	Tetrachloroethene	UG/L	10		U	UJ	5
MW-08	trans-1,2-Dichloroethene	UG/L			U		5
MW-08	Trichloroethene	UG/L	10		U		5
MW-08	Vinyl chloride	UG/L	10		U		5
MW-09R	1,1-Dichloroethane	UG/L	200		U		5
MW-09R	1,1-Dichloroethene	UG/L	200		U	UJ	5
MW-09R	1,2-Dichloroethane	UG/L	200		U		5
MW-09R	Benzene	UG/L	310	6.6			5
MW-09R	Chloroethane	UG/L	2,900	61			5
MW-09R	cis-1,2-Dichloroethene	UG/L			U		5
MW-09R	Tetrachloroethene	UG/L	200		U		5
MW-09R	trans-1,2-Dichloroethene	UG/L			U		5
MW-09R	Trichloroethene	UG/L	200		U		5
MW-09R	Vinyl chloride	UG/L	200		U		5
MW-10C	1,1-Dichloroethane	UG/L	150		U		5
MW-10C	1,1-Dichloroethene	UG/L	150		U		5
MW-10C	1,2-Dichloroethane	UG/L	150		U		5
MW-10C	Benzene	UG/L	150	1,800	D		63
MW-10C	Chloroethane	UG/L	420	60			5
MW-10C	cis-1,2-Dichloroethene	UG/L			U		5
MW-10C	Tetrachloroethene	UG/L	150		U		5
MW-10C	trans-1,2-Dichloroethene	UG/L			U		5
MW-10C	Trichloroethene	UG/L	150		U		5
MW-10C	Vinyl chloride	UG/L	129		U		5
MW-11	1,1-Dichloroethane	UG/L	10		U		5
MW-11	1,1-Dichloroethene	UG/L	10		U		5
MW-11	1,2-Dichloroethane	UG/L	10		U		5
MW-11	Benzene	UG/L	10		U		5
MW-11	Chloroethane	UG/L	10		U		5
MW-11	cis-1,2-Dichloroethene	UG/L			U		5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Monitoring Well Volatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Service NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
MW-11	Tetrachloroethene	UG/L	10		U		5
MW-11	trans-1,2-Dichloroethene	UG/L			U		5
MW-11	Trichloroethene	UG/L	10		U		5
MW-11	Vinyl chloride	UG/L	10		U		5
MW-14	1,1-Dichloroethane	UG/L	100		U		5
MW-14	1,1-Dichloroethene	UG/L	100		U		5
MW-14	1,2-Dichloroethane	UG/L	100		U		5
MW-14	Benzene	UG/L	41		U		5
MW-14	Chloroethane	UG/L	1,000		U		5
MW-14	cis-1,2-Dichloroethene	UG/L			U		5
MW-14	Tetrachloroethene	UG/L	100		U		5
MW-14	trans-1,2-Dichloroethene	UG/L			U		5
MW-14	Trichloroethene	UG/L	100		U		5
MW-14	Vinyl chloride	UG/L	100		U		5
MW-15	1,1-Dichloroethane	UG/L	10		U		5
MW-15	1,1-Dichloroethene	UG/L	10		U		5
MW-15	1,2-Dichloroethane	UG/L	10		U		5
MW-15	Benzene	UG/L	10	2.8	J		5
MW-15	Chloroethane	UG/L	10		U		5
MW-15	cis-1,2-Dichloroethene	UG/L			U		5
MW-15	Tetrachloroethene	UG/L	10		U		5
MW-15	trans-1,2-Dichloroethene	UG/L			U		5
MW-15	Trichloroethene	UG/L	10		U		5
MW-15	Vinyl chloride	UG/L	10		U		5
MW-17	1,1-Dichloroethane	UG/L			U		5
MW-17	1,1-Dichloroethene	UG/L			U		5
MW-17	1,2-Dichloroethane	UG/L			U		5
MW-17	Benzene	UG/L			U		5
MW-17	Chloroethane	UG/L			U		5
MW-17	cis-1,2-Dichloroethene	UG/L			U		5
MW-17	Tetrachloroethene	UG/L			U	UJ	5
MW-17	trans-1,2-Dichloroethene	UG/L			U		5
MW-17	Trichloroethene	UG/L			U		5
MW-17	Vinyl chloride	UG/L			U		5
MW-19	1,1-Dichloroethane	UG/L	10		U		5
MW-19	1,1-Dichloroethene	UG/L	10		U		5
MW-19	1,2-Dichloroethane	UG/L	10		U		5
MW-19	Benzene	UG/L	10	2.3	J		5
MW-19	Chloroethane	UG/L	20	20			5
MW-19	cis-1,2-Dichloroethene	UG/L			U		5
MW-19	Tetrachloroethene	UG/L	10		U		5
MW-19	trans-1,2-Dichloroethene	UG/L			U		5
MW-19	Trichloroethene	UG/L	10		U		5
MW-19	Vinyl chloride	UG/L	10		U		5
MW-23	1,1-Dichloroethane	UG/L	10		U		5
MW-23	1,1-Dichloroethene	UG/L	10		U		5

BOLDE = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Monitoring Well Volatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Service NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
MW-23	1,2-Dichloroethane	UG/L	10		U		5
MW-23	Benzene	UG/L	10		U		5
MW-23	Chloroethane	UG/L	10		U		5
MW-23	cis-1,2-Dichloroethene	UG/L			U		5
MW-23	Tetrachloroethene	UG/L	10		U		5
MW-23	trans-1,2-Dichloroethene	UG/L			U		5
MW-23	Trichloroethene	UG/L	10		U		5
MW-23	Vinyl chloride	UG/L	10		U		5
MW-28	1,1-Dichloroethane	UG/L	10		U		5
MW-28	1,1-Dichloroethene	UG/L	10		U		5
MW-28	1,2-Dichloroethane	UG/L	10		U		5
MW-28	Benzene	UG/L	10		U		5
MW-28	Chloroethane	UG/L	10		U		5
MW-28	cis-1,2-Dichloroethene	UG/L			U		5
MW-28	Tetrachloroethene	UG/L	10		U	UJ	5
MW-28	trans-1,2-Dichloroethene	UG/L			U		5
MW-28	Trichloroethene	UG/L	10		U		5
MW-28	Vinyl chloride	UG/L	10		U		5
MW-29	1,1-Dichloroethane	UG/L	10		U		5
MW-29	1,1-Dichloroethene	UG/L	10		U		5
MW-29	1,2-Dichloroethane	UG/L	10		U		5
MW-29	Benzene	UG/L	10	1.4	J		5
MW-29	Chloroethane	UG/L	10	25			5
MW-29	cis-1,2-Dichloroethene	UG/L			U		5
MW-29	Tetrachloroethene	UG/L	10		U		5
MW-29	trans-1,2-Dichloroethene	UG/L			U		5
MW-29	Trichloroethene	UG/L	10		U		5
MW-29	Vinyl chloride	UG/L	10		U		5
MW-30	1,1-Dichloroethane	UG/L	10		U		5
MW-30	1,1-Dichloroethene	UG/L	10		U		5
MW-30	1,2-Dichloroethane	UG/L	10		U		5
MW-30	Benzene	UG/L	10		U		5
MW-30	Chloroethane	UG/L	10		U		5
MW-30	cis-1,2-Dichloroethene	UG/L			U		5
MW-30	Tetrachloroethene	UG/L	10		U	UJ	5
MW-30	trans-1,2-Dichloroethene	UG/L			U		5
MW-30	Trichloroethene	UG/L	10		U		5
MW-30	Vinyl chloride	UG/L	10		U		5
MW-31	1,1-Dichloroethane	UG/L	10		U		5
MW-31	1,1-Dichloroethene	UG/L	10		U		5
MW-31	1,2-Dichloroethane	UG/L	10		U		5
MW-31	Benzene	UG/L	10		U		5
MW-31	Chloroethane	UG/L	10		U		5
MW-31	cis-1,2-Dichloroethene	UG/L			U		5
MW-31	Tetrachloroethene	UG/L	10		U	UJ	5
MW-31	trans-1,2-Dichloroethene	UG/L			U		5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Monitoring Well Volatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Service NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
MW-31	Trichloroethene	UG/L	10	U			5
MW-31	Vinyl chloride	UG/L	10	U			5
MW-32	1,1-Dichloroethane	UG/L	10	U			5
MW-32	1,1-Dichloroethene	UG/L	10	U			5
MW-32	1,2-Dichloroethane	UG/L	10	U			5
MW-32	Benzene	UG/L	10	U			5
MW-32	Chloroethane	UG/L	10	U			5
MW-32	cis-1,2-Dichloroethene	UG/L		U			5
MW-32	Tetrachloroethene	UG/L	10	U	UJ		5
MW-32	trans-1,2-Dichloroethene	UG/L		U			5
MW-32	Trichloroethene	UG/L	10	U			5
MW-32	Vinyl chloride	UG/L	10	U			5
MW-33	1,1-Dichloroethane	UG/L	10	U			5
MW-33	1,1-Dichloroethene	UG/L	10	U			5
MW-33	1,2-Dichloroethane	UG/L	10	U			5
MW-33	Benzene	UG/L	10	U			5
MW-33	Chloroethane	UG/L	10	U			5
MW-33	cis-1,2-Dichloroethene	UG/L		U			5
MW-33	Tetrachloroethene	UG/L	10	U	UJ		5
MW-33	trans-1,2-Dichloroethene	UG/L		U			5
MW-33	Trichloroethene	UG/L	10	U			5
MW-33	Vinyl chloride	UG/L	10	U			5
MW-42	1,1-Dichloroethane	UG/L	10	U			5
MW-42	1,1-Dichloroethene	UG/L	10	U			5
MW-42	1,2-Dichloroethane	UG/L	10	U			5
MW-42	Benzene	UG/L	10	U			5
MW-42	Chloroethane	UG/L	10	U			5
MW-42	cis-1,2-Dichloroethene	UG/L		U			5
MW-42	Tetrachloroethene	UG/L	10	U			5
MW-42	trans-1,2-Dichloroethene	UG/L		U			5
MW-42	Trichloroethene	UG/L	10	U			5
MW-42	Vinyl chloride	UG/L	10	U			5
MW-43	1,1-Dichloroethane	UG/L	10	U			5
MW-43	1,1-Dichloroethene	UG/L	10	U			5
MW-43	1,2-Dichloroethane	UG/L	10	U			5
MW-43	Benzene	UG/L	10	U			5
MW-43	Chloroethane	UG/L	10	U			5
MW-43	cis-1,2-Dichloroethene	UG/L		U			5
MW-43	Tetrachloroethene	UG/L	10	U			5
MW-43	trans-1,2-Dichloroethene	UG/L		U			5
MW-43	Trichloroethene	UG/L	10	U			5
MW-43	Vinyl chloride	UG/L	10	U			5
MW-44	1,1-Dichloroethane	UG/L	10	U			5
MW-44	1,1-Dichloroethene	UG/L	10	U			5
MW-44	1,2-Dichloroethane	UG/L	10	U			5
MW-44	Benzene	UG/L	10	U			5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Monitoring Well Volatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Service NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
MW-44	Chloroethane	UG/L	10		U		5
MW-44	cis-1,2-Dichloroethene	UG/L			U		5
MW-44	Tetrachloroethene	UG/L	10		U		5
MW-44	trans-1,2-Dichloroethene	UG/L			U		5
MW-44	Trichloroethene	UG/L	10		U		5
MW-44	Vinyl chloride	UG/L	10		U		5
MW-45	1,1-Dichloroethane	UG/L	80		U		5
MW-45	1,1-Dichloroethene	UG/L	80		U		5
MW-45	1,2-Dichloroethane	UG/L	80		U		5
MW-45	Benzene	UG/L	1,045	5			5
MW-45	Chloroethane	UG/L	215		U		5
MW-45	cis-1,2-Dichloroethene	UG/L			U		5
MW-45	Tetrachloroethene	UG/L	80		U		5
MW-45	trans-1,2-Dichloroethene	UG/L			U		5
MW-45	Trichloroethene	UG/L	80		U		5
MW-45	Vinyl chloride	UG/L	80		U		5
MW-48	1,1-Dichloroethane	UG/L	500		U		83
MW-48	1,1-Dichloroethene	UG/L	500		U		83
MW-48	1,2-Dichloroethane	UG/L	500		U		83
MW-48	Benzene	UG/L	9,500	1,800			83
MW-48	Chloroethane	UG/L	1,000		U		83
MW-48	cis-1,2-Dichloroethene	UG/L			U		83
MW-48	Tetrachloroethene	UG/L	500		U		83
MW-48	trans-1,2-Dichloroethene	UG/L			U		83
MW-48	Trichloroethene	UG/L	500		U		83
MW-48	Vinyl chloride	UG/L	500		U		83
MW-49	1,1-Dichloroethane	UG/L	500		U		17
MW-49	1,1-Dichloroethene	UG/L	500		U		17
MW-49	1,2-Dichloroethane	UG/L	500		U		17
MW-49	Benzene	UG/L	6,750	400	J		17
MW-49	Chloroethane	UG/L	715	38			17
MW-49	cis-1,2-Dichloroethene	UG/L			U		17
MW-49	Tetrachloroethene	UG/L	500		U		17
MW-49	trans-1,2-Dichloroethene	UG/L			U		17
MW-49	Trichloroethene	UG/L	500		U		17
MW-49	Vinyl chloride	UG/L	500		U		17
MW-51	1,1-Dichloroethane	UG/L	100		U		5
MW-51	1,1-Dichloroethene	UG/L	100		U		5
MW-51	1,2-Dichloroethane	UG/L	100		U		5
MW-51	Benzene	UG/L	100		U		5
MW-51	Chloroethane	UG/L	100		U		5
MW-51	cis-1,2-Dichloroethene	UG/L			U		5
MW-51	Tetrachloroethene	UG/L	100		U	UJ	5
MW-51	trans-1,2-Dichloroethene	UG/L			U		5
MW-51	Trichloroethene	UG/L	100		U		5
MW-51	Vinyl chloride	UG/L	100		U		5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Monitoring Well Volatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Service NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
MW-52	1,1-Dichloroethane	UG/L	100		U		5
MW-52	1,1-Dichloroethene	UG/L	100		U		5
MW-52	1,2-Dichloroethane	UG/L	100		U		5
MW-52	Benzene	UG/L	100		U		5
MW-52	Chloroethane	UG/L	100		U		5
MW-52	cis-1,2-Dichloroethene	UG/L			U		5
MW-52	Tetrachloroethene	UG/L	100		U		5
MW-52	trans-1,2-Dichloroethene	UG/L			U		5
MW-52	Trichloroethene	UG/L	100		U		5
MW-52	Vinyl chloride	UG/L	100		U		5
MW-53	1,1-Dichloroethane	UG/L	10		U		5
MW-53	1,1-Dichloroethene	UG/L	10		U		5
MW-53	1,2-Dichloroethane	UG/L	10		U		5
MW-53	Benzene	UG/L	10	7.9			5
MW-53	Chloroethane	UG/L	10		U		5
MW-53	cis-1,2-Dichloroethene	UG/L			U		5
MW-53	Tetrachloroethene	UG/L	10		U		5
MW-53	trans-1,2-Dichloroethene	UG/L			U		5
MW-53	Trichloroethene	UG/L	10		U		5
MW-53	Vinyl chloride	UG/L	10		U		5
MW-54R	1,1-Dichloroethane	UG/L	10		U		5
MW-54R	1,1-Dichloroethene	UG/L	10		U		5
MW-54R	1,2-Dichloroethane	UG/L	10		U		5
MW-54R	Benzene	UG/L	10		U		5
MW-54R	Chloroethane	UG/L	10		U		5
MW-54R	cis-1,2-Dichloroethene	UG/L			U		5
MW-54R	Tetrachloroethene	UG/L	10		U	UJ	5
MW-54R	trans-1,2-Dichloroethene	UG/L			U		5
MW-54R	Trichloroethene	UG/L	10		U		5
MW-54R	Vinyl chloride	UG/L	10		U		5
MW-55	1,1-Dichloroethane	UG/L	10		U		5
MW-55	1,1-Dichloroethene	UG/L	10		U		5
MW-55	1,2-Dichloroethane	UG/L	10		U		5
MW-55	Benzene	UG/L	10		U		5
MW-55	Chloroethane	UG/L	10		U		5
MW-55	cis-1,2-Dichloroethene	UG/L			U		5
MW-55	Tetrachloroethene	UG/L	10		U		5
MW-55	trans-1,2-Dichloroethene	UG/L			U		5
MW-55	Trichloroethene	UG/L	10		U		5
MW-55	Vinyl chloride	UG/L	10		U		5
MW-56	1,1-Dichloroethane	UG/L			U		5
MW-56	1,1-Dichloroethene	UG/L			U		5
MW-56	1,2-Dichloroethane	UG/L			U		5
MW-56	Benzene	UG/L		1,200	D		42
MW-56	Chloroethane	UG/L			U		5
MW-56	cis-1,2-Dichloroethene	UG/L			U		5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

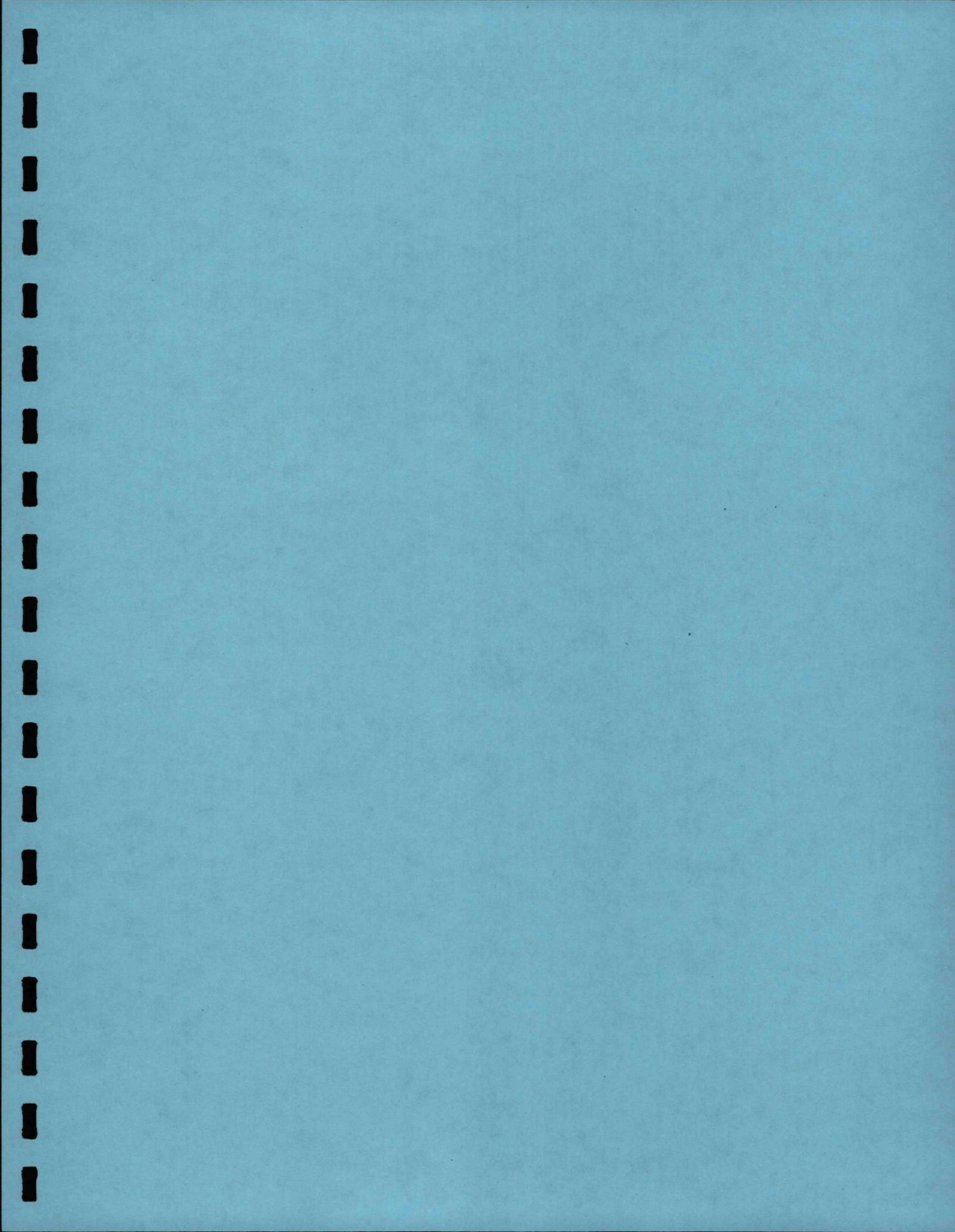
Monitoring Well Volatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Service NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
MW-56	Tetrachloroethene	UG/L		U			5
MW-56	trans-1,2-Dichloroethene	UG/L		U			5
MW-56	Trichloroethene	UG/L		U			5
MW-56	Vinyl chloride	UG/L		U			5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.



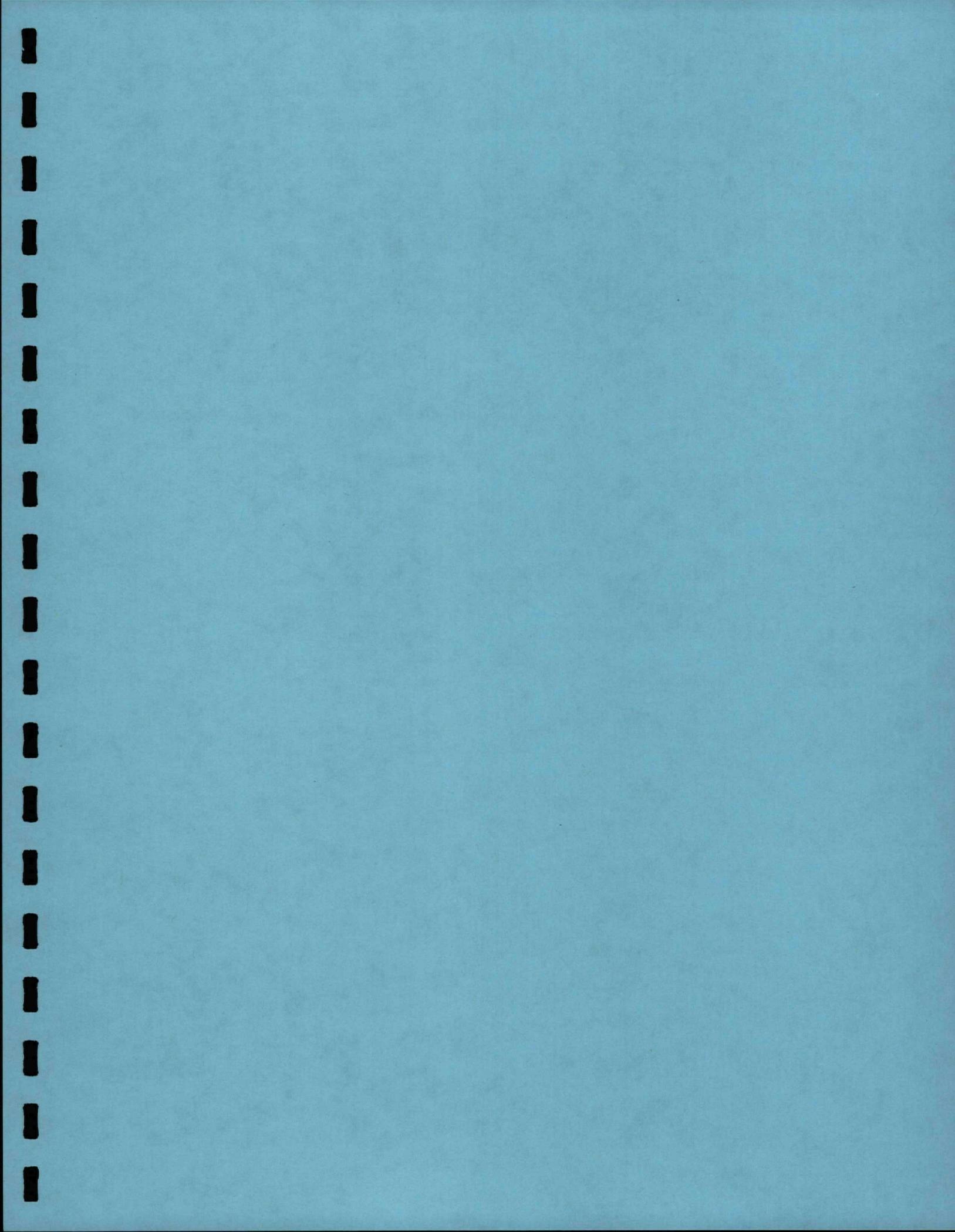
Monitoring Well Inorganic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Service NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
MW-42	Aluminum	UG/L	1,880	178	B	UB	200
MW-42	Antimony	UG/L	2.0		U		10
MW-42	Arsenic	UG/L	15		U		10
MW-42	Barium	UG/L	97	54.4			10
MW-42	Beryllium	UG/L	1.0		U		5
MW-42	Cadmium	UG/L	1.0		U		5
MW-42	Calcium	UG/L	139,000	927,000		B	5,000
MW-42	Chromium (Total)	UG/L	15	24.2			5
MW-42	Cobalt	UG/L	10	80.7			5
MW-42	Copper	UG/L	22		U		5
MW-42	Iron	UG/L	11,100	1,950		B	100
MW-42	Lead	UG/L	5.7	1.5	B		3
MW-42	Magnesium	UG/L	49,800	77,500		B	5,000
MW-42	Manganese	UG/L	928	4,710		B	10
MW-42	Mercury	UG/L	0.20		U		0.2
MW-42	Nickel	UG/L	20	62.2			5
MW-42	Potassium	UG/L	2,350	3,620	BE	UBJ	5,000
MW-42	Selenium	UG/L	2.0	3.1	B		5
MW-42	Silver	UG/L	10		U		5
MW-42	Sodium	UG/L	18,000	19,700	E	JB	5,000
MW-42	Thallium	UG/L	3.0		U		10
MW-42	Vanadium	UG/L	20	3	B		20
MW-42	Zinc	UG/L	30	27.9		UB	20
MW-44	Aluminum	UG/L	1,710		U		200
MW-44	Antimony	UG/L	2.0		U		10
MW-44	Arsenic	UG/L	41	15.2			10
MW-44	Barium	UG/L	150	133			10
MW-44	Beryllium	UG/L	1.0		U		5
MW-44	Cadmium	UG/L	1.0		U		5
MW-44	Calcium	UG/L	94,000	98,900		B	5,000
MW-44	Chromium (Total)	UG/L	31	148			5
MW-44	Cobalt	UG/L	10	1	B		5
MW-44	Copper	UG/L	27	4.5	B	UB	5
MW-44	Iron	UG/L	14,700	6,080		B	100
MW-44	Lead	UG/L	1.5	1.5	B		3
MW-44	Magnesium	UG/L	38,450	41,600		B	5,000
MW-44	Manganese	UG/L	108	48.8		B	10
MW-44	Mercury	UG/L	0.20		U		0.2
MW-44	Nickel	UG/L	23	7.3			5
MW-44	Potassium	UG/L	2,040	2,250	BE	UBJ	5,000
MW-44	Selenium	UG/L	2.0		U		5
MW-44	Silver	UG/L	10		U		5
MW-44	Sodium	UG/L	20,800	30,800	E	JB	5,000
MW-44	Thallium	UG/L	3.0		U		10
MW-44	Vanadium	UG/L	20	2.5	B		20
MW-44	Zinc	UG/L	28	18.9	B	UB	20

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.



Residential Well Volatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-A	1,1,1-Trichloroethane	UG/L	1.0		U		0.5
PW-A	1,1,2,2-Tetrachloroethane	UG/L	1.0		U		0.5
PW-A	1,1,2-Trichloroethane	UG/L	1.0		U		0.5
PW-A	1,1-Dichloroethane	UG/L	1.0		U		0.5
PW-A	1,1-Dichloroethene	UG/L	1.0		U		0.5
PW-A	1,2,4-Trichlorobenzene	UG/L	NA		U		0.5
PW-A	1,2-Dibromo-3-chloropropane	UG/L	NA		U		0.5
PW-A	1,2-Dibromoethane	UG/L	NA		U		0.5
PW-A	1,2-Dichlorobenzene	UG/L	NA		U		0.5
PW-A	1,2-Dichloroethane	UG/L	1.0		U		0.5
PW-A	1,2-Dichloropropane	UG/L	1.0		U		0.5
PW-A	1,3-Dichlorobenzene	UG/L	NA		U		0.5
PW-A	1,4-Dichlorobenzene	UG/L	NA		U		0.5
PW-A	2-Butanone	UG/L	5.0		U		3
PW-A	2-Hexanone	UG/L	5.0		U		3
PW-A	4-Methyl-2-pentanone	UG/L	5.0		U		3
PW-A	Acetone	UG/L	10	1.5	J		3
PW-A	Benzene	UG/L	1.0		U		0.5
PW-A	Bromodichloromethane	UG/L	1.0		U		0.5
PW-A	Bromoform	UG/L	1.0		U		0.5
PW-A	Bromomethane	UG/L	1.0		U		0.5
PW-A	Carbon disulfide	UG/L	1.0		U		0.5
PW-A	Carbon Tetrachloride	UG/L	1.0		U		0.5
PW-A	Chlorobenzene	UG/L	1.0	0.057	J		0.5
PW-A	Chloroethane	UG/L	1.0		U		0.5
PW-A	Chloroform	UG/L	1.0	0.035	J		0.5
PW-A	Chloromethane	UG/L	1.0		U		0.5
PW-A	cis-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-A	cis-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-A	Dibromochloromethane	UG/L	1.0		U		0.5
PW-A	Dichlorodifluoromethane	UG/L	NA		U		0.5
PW-A	Ethyl Benzene	UG/L	1.0		U		0.5
PW-A	Isopropylbenzene	UG/L	NA		U		0.5
PW-A	m,p-Xylene	UG/L	NA	0.082	J		1
PW-A	Methyl tert-butyl ether	UG/L	NA		U		0.5
PW-A	Methylene chloride	UG/L	1.0	0.48	JB	UB	0.5
PW-A	o-xylene	UG/L	NA		U		0.5
PW-A	Styrene	UG/L	1.0		U		0.5
PW-A	Tetrachloroethene	UG/L	1.0	0.043	J		0.5
PW-A	Toluene	UG/L	1.0	0.43	JB	UB	0.5
PW-A	trans-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-A	trans-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-A	Trichloroethene	UG/L	1.0		U		0.5
PW-A	Trichlorofluoromethane	UG/L	NA		U		0.5
PW-A	Vinyl chloride	UG/L	1.0		U		0.5
PW-A	Xylenes (total)	UG/L	5.0	0.091	J		0.5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

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For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Volatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-B	1,1,1-Trichloroethane	UG/L	1.0		U		0.5
PW-B	1,1,2,2-Tetrachloroethane	UG/L	1.0		U		0.5
PW-B	1,1,2-Trichloroethane	UG/L	1.0		U		0.5
PW-B	1,1-Dichloroethane	UG/L	1.0		U		0.5
PW-B	1,1-Dichloroethene	UG/L	1.0		U		0.5
PW-B	1,2,4-Trichlorobenzene	UG/L	NA		U		0.5
PW-B	1,2-Dibromo-3-chloropropane	UG/L	NA		U		0.5
PW-B	1,2-Dibromoethane	UG/L	NA		U		0.5
PW-B	1,2-Dichlorobenzene	UG/L	NA		U		0.5
PW-B	1,2-Dichloroethane	UG/L	1.0		U		0.5
PW-B	1,2-Dichloropropane	UG/L	1.0		U		0.5
PW-B	1,3-Dichlorobenzene	UG/L	NA		U		0.5
PW-B	1,4-Dichlorobenzene	UG/L	NA		U		0.5
PW-B	2-Butanone	UG/L	5.0		U		3
PW-B	2-Hexanone	UG/L	5.0		U		3
PW-B	4-Methyl-2-pentanone	UG/L	5.0		U		3
PW-B	Acetone	UG/L	5.0	1.4	J		3
PW-B	Benzene	UG/L	1.0		U		0.5
PW-B	Bromodichloromethane	UG/L	1.0		U		0.5
PW-B	Bromoform	UG/L	1.0		U		0.5
PW-B	Bromomethane	UG/L	1.0		U		0.5
PW-B	Carbon disulfide	UG/L	1.0		U		0.5
PW-B	Carbon Tetrachloride	UG/L	1.0		U		0.5
PW-B	Chlorobenzene	UG/L	1.0	0.04	J		0.5
PW-B	Chloroethane	UG/L	1.0		U		0.5
PW-B	Chloroform	UG/L	1.0		U		0.5
PW-B	Chloromethane	UG/L	1.0		U		0.5
PW-B	cis-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-B	cis-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-B	Dibromochloromethane	UG/L	1.0		U		0.5
PW-B	Dichlorodifluoromethane	UG/L	NA		U		0.5
PW-B	Ethyl Benzene	UG/L	1.0		U		0.5
PW-B	Isopropylbenzene	UG/L	NA		U		0.5
PW-B	m,p-Xylene	UG/L	NA	0.061	J		1
PW-B	Methyl tert-butyl ether	UG/L	NA		U		0.5
PW-B	Methylene chloride	UG/L	1.0	0.45	JB	UB	0.5
PW-B	o-xylene	UG/L	NA		U		0.5
PW-B	Styrene	UG/L	1.0		U		0.5
PW-B	Tetrachloroethene	UG/L	1.0		U		0.5
PW-B	Toluene	UG/L	1.0	0.35	JB	UB	0.5
PW-B	trans-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-B	trans-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-B	Trichloroethene	UG/L	1.0		U		0.5
PW-B	Trichlorofluoromethane	UG/L	NA		U		0.5
PW-B	Vinyl chloride	UG/L	1.0		U		0.5
PW-B	Xylenes (total)	UG/L	5.0	0.068	J		0.5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

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For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Volatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-C	1,1,1-Trichloroethane	UG/L	1.0		U		0.5
PW-C	1,1,2,2-Tetrachloroethane	UG/L	1.0		U		0.5
PW-C	1,1,2-Trichloroethane	UG/L	1.0	0.78			0.5
PW-C	1,1-Dichloroethane	UG/L	1.0		U		0.5
PW-C	1,1-Dichloroethene	UG/L	1.0		U		0.5
PW-C	1,2,4-Trichlorobenzene	UG/L	NA		U		0.5
PW-C	1,2-Dibromo-3-chloropropane	UG/L	NA		U		0.5
PW-C	1,2-Dibromoethane	UG/L	NA		U		0.5
PW-C	1,2-Dichlorobenzene	UG/L	NA		U		0.5
PW-C	1,2-Dichloroethane	UG/L	1.0		U		0.5
PW-C	1,2-Dichloropropane	UG/L	1.0		U		0.5
PW-C	1,3-Dichlorobenzene	UG/L	NA		U		0.5
PW-C	1,4-Dichlorobenzene	UG/L	NA		U		0.5
PW-C	2-Butanone	UG/L	5.0		U		3
PW-C	2-Hexanone	UG/L	5.0		U		3
PW-C	4-Methyl-2-pentanone	UG/L	5.0		U		3
PW-C	Acetone	UG/L	5.0	1.2	J		3
PW-C	Benzene	UG/L	1.0		U		0.5
PW-C	Bromodichloromethane	UG/L	1.0		U		0.5
PW-C	Bromoform	UG/L	1.0		U		0.5
PW-C	Bromomethane	UG/L	1.0		U		0.5
PW-C	Carbon disulfide	UG/L	1.0	0.19	J		0.5
PW-C	Carbon Tetrachloride	UG/L	1.0		U		0.5
PW-C	Chlorobenzene	UG/L	1.0	0.04	J		0.5
PW-C	Chloroethane	UG/L	1.0		U		0.5
PW-C	Chloroform	UG/L	1.0	0.063	J		0.5
PW-C	Chloromethane	UG/L	1.0		U		0.5
PW-C	cis-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-C	cis-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-C	Dibromochloromethane	UG/L	1.0		U		0.5
PW-C	Dichlorodifluoromethane	UG/L	NA		U		0.5
PW-C	Ethyl Benzene	UG/L	1.0		U		0.5
PW-C	Isopropylbenzene	UG/L	NA		U		0.5
PW-C	m,p-Xylene	UG/L	NA		U		1
PW-C	Methyl tert-butyl ether	UG/L	NA		U		0.5
PW-C	Methylene chloride	UG/L	1.0	0.53	B	UB	0.5
PW-C	o-xylene	UG/L	NA		U		0.5
PW-C	Styrene	UG/L	1.0		U		0.5
PW-C	Tetrachloroethene	UG/L	1.0		U		0.5
PW-C	Toluene	UG/L	1.0	0.31	JB	UB	0.5
PW-C	trans-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-C	trans-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-C	Trichloroethene	UG/L	1.0		U		0.5
PW-C	Trichlorofluoromethane	UG/L	NA		U		0.5
PW-C	Vinyl chloride	UG/L	1.0		U		0.5
PW-C	Xylenes (total)	UG/L	5.0		U		0.5

BOLE = Exceedance of Highest Baseline Detection

NA = Not Applicable

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For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Volatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-D	1,1,1-Trichloroethane	UG/L	1.0		U		0.5
PW-D	1,1,2,2-Tetrachloroethane	UG/L	1.0		U		0.5
PW-D	1,1,2-Trichloroethane	UG/L	1.0		U		0.5
PW-D	1,1-Dichloroethane	UG/L	1.0		U		0.5
PW-D	1,1-Dichloroethene	UG/L	1.0		U		0.5
PW-D	1,2,4-Trichlorobenzene	UG/L	NA		U		0.5
PW-D	1,2-Dibromo-3-chloropropane	UG/L	NA		U		0.5
PW-D	1,2-Dibromoethane	UG/L	NA		U		0.5
PW-D	1,2-Dichlorobenzene	UG/L	NA		U		0.5
PW-D	1,2-Dichloroethane	UG/L	1.0		U		0.5
PW-D	1,2-Dichloropropane	UG/L	1.0		U		0.5
PW-D	1,3-Dichlorobenzene	UG/L	NA		U		0.5
PW-D	1,4-Dichlorobenzene	UG/L	NA		U		0.5
PW-D	2-Butanone	UG/L	5.0		U		3
PW-D	2-Hexanone	UG/L	5.0		U		3
PW-D	4-Methyl-2-pentanone	UG/L	5.0		U		3
PW-D	Acetone	UG/L	5.0	1.8	J		3
PW-D	Benzene	UG/L	1.0		U		0.5
PW-D	Bromodichloromethane	UG/L	1.0		U		0.5
PW-D	Bromoform	UG/L	1.0		U		0.5
PW-D	Bromomethane	UG/L	1.0		U		0.5
PW-D	Carbon disulfide	UG/L	1.0	0.08	J		0.5
PW-D	Carbon Tetrachloride	UG/L	1.0		U		0.5
PW-D	Chlorobenzene	UG/L	1.0		U		0.5
PW-D	Chloroethane	UG/L	1.0		U		0.5
PW-D	Chloroform	UG/L	1.0		U		0.5
PW-D	Chloromethane	UG/L	1.0		U		0.5
PW-D	cis-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-D	cis-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-D	Dibromochloromethane	UG/L	1.0		U		0.5
PW-D	Dichlorodifluoromethane	UG/L	NA		U		0.5
PW-D	Ethyl Benzene	UG/L	1.0		U		0.5
PW-D	Isopropylbenzene	UG/L	NA		U		0.5
PW-D	m,p-Xylene	UG/L	NA		U		1
PW-D	Methyl tert-butyl ether	UG/L	NA		U		0.5
PW-D	Methylene chloride	UG/L	2.0	0.52	B	UB	0.5
PW-D	o-xylene	UG/L	NA		U		0.5
PW-D	Styrene	UG/L	1.0		U		0.5
PW-D	Tetrachloroethene	UG/L	1.0	0.046	J		0.5
PW-D	Toluene	UG/L	1.0	0.33	JB	UB	0.5
PW-D	trans-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-D	trans-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-D	Trichloroethene	UG/L	1.0		U		0.5
PW-D	Trichlorofluoromethane	UG/L	NA		U		0.5
PW-D	Vinyl chloride	UG/L	1.0		U		0.5
PW-D	Xylenes (total)	UG/L	5.0		U		0.5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

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For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Volatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

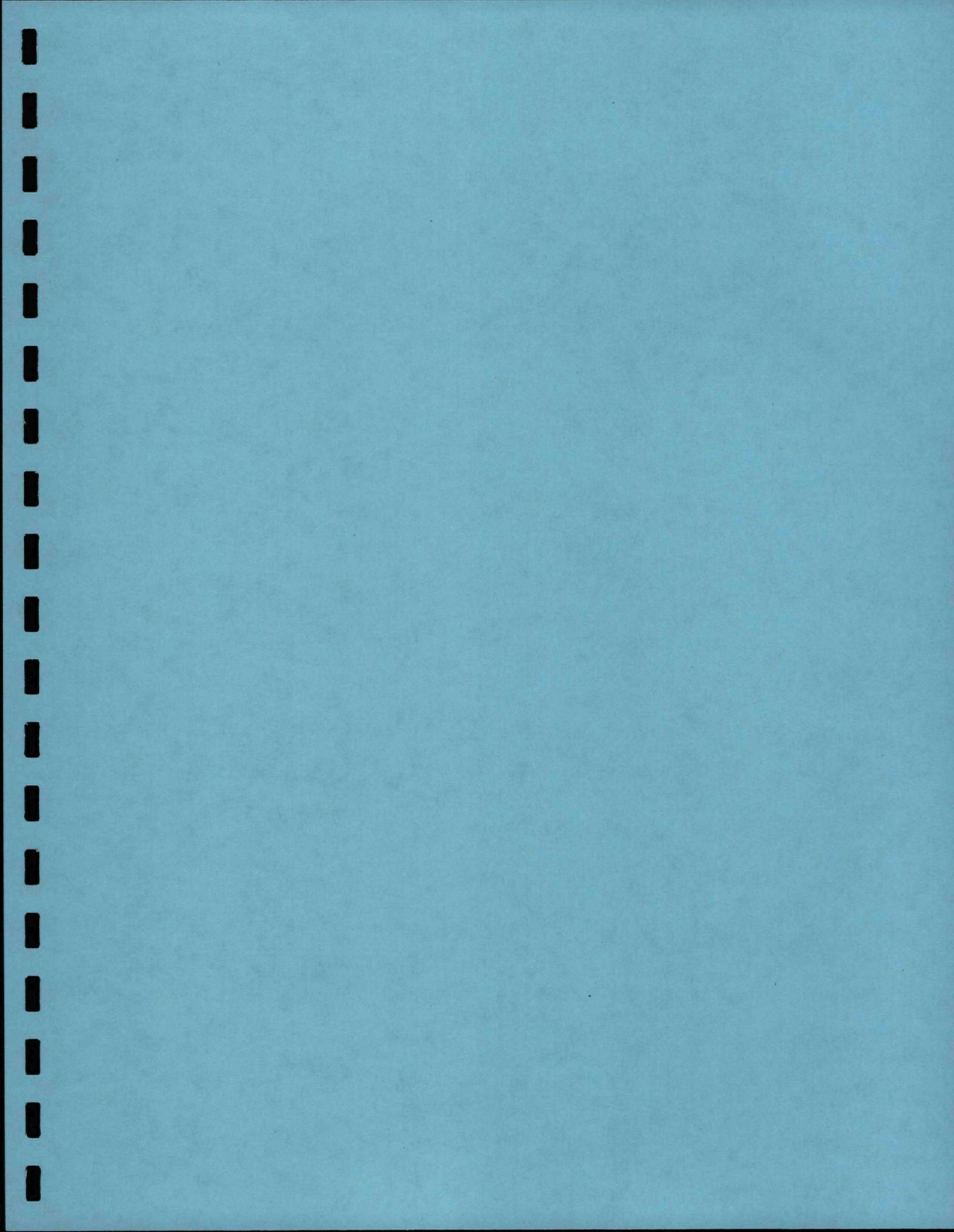
Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-Y	1,1,1-Trichloroethane	UG/L	1.0		U		0.5
PW-Y	1,1,2,2-Tetrachloroethane	UG/L	1.0		U		0.5
PW-Y	1,1,2-Trichloroethane	UG/L	1.0		U		0.5
PW-Y	1,1-Dichloroethane	UG/L	1.0		U		0.5
PW-Y	1,1-Dichloroethene	UG/L	1.0		U		0.5
PW-Y	1,2,4-Trichlorobenzene	UG/L	NA		U		0.5
PW-Y	1,2-Dibromo-3-chloropropane	UG/L	NA		U		0.5
PW-Y	1,2-Dibromoethane	UG/L	NA		U		0.5
PW-Y	1,2-Dichlorobenzene	UG/L	NA		U		0.5
PW-Y	1,2-Dichloroethane	UG/L	1.0		U		0.5
PW-Y	1,2-Dichloropropane	UG/L	1.0		U		0.5
PW-Y	1,3-Dichlorobenzene	UG/L	NA		U		0.5
PW-Y	1,4-Dichlorobenzene	UG/L	NA		U		0.5
PW-Y	2-Butanone	UG/L	NA		U		3
PW-Y	2-Hexanone	UG/L	5.0		U		3
PW-Y	4-Methyl-2-pentanone	UG/L	5.0	1.5	J		3
PW-Y	Acetone	UG/L	NA	1.8	JB	UB	3
PW-Y	Benzene	UG/L	1.0		U		0.5
PW-Y	Bromodichloromethane	UG/L	1.0	5.5			0.5
PW-Y	Bromoform	UG/L	1.0		U		0.5
PW-Y	Bromomethane	UG/L	1.0		U		0.5
PW-Y	Carbon disulfide	UG/L	1.0		U		0.5
PW-Y	Carbon Tetrachloride	UG/L	1.0		U		0.5
PW-Y	Chlorobenzene	UG/L	1.0	0.036	JB	UB	0.5
PW-Y	Chloroethane	UG/L	1.0		U		0.5
PW-Y	Chloroform	UG/L	1.0	0.31			0.5
PW-Y	Chloromethane	UG/L	NA		U		0.5
PW-Y	cis-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-Y	cis-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-Y	Dibromochloromethane	UG/L	1.0	0.31			0.5
PW-Y	Dichlorodifluoromethane	UG/L	NA		U		0.5
PW-Y	Ethyl Benzene	UG/L	1.0	0.057	JB	UB	0.5
PW-Y	Isopropylbenzene	UG/L	NA		U		0.5
PW-Y	m,p-Xylene	UG/L	NA	0.15	JB	UB	1
PW-Y	Methyl tert-butyl ether	UG/L	NA		U		0.5
PW-Y	Methylene chloride	UG/L	2.0	0.62	B	UB	0.5
PW-Y	o-xylene	UG/L	NA	0.19	J		0.5
PW-Y	Styrene	UG/L	1.0		U		0.5
PW-Y	Tetrachloroethene	UG/L	1.0	0.055	JB	UB	0.5
PW-Y	Toluene	UG/L	1.0	0.21	JB	UBJ	0.5
PW-Y	trans-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-Y	trans-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-Y	Trichloroethene	UG/L	1.0		U		0.5
PW-Y	Trichlorofluoromethane	UG/L	NA		U		0.5
PW-Y	Vinyl chloride	UG/L	1.0		U		0.5
PW-Y	Xylenes (total)	UG/L	5.0	0.36	JB	UB	0.5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

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For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.



Residential Well Semivolatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-A	1,2,4,5-Tetrachlorobenzene	UG/L	NA		U		5
PW-A	2,2'-oxybis(1-Chloropropane)	UG/L	5.0		U		5
PW-A	2,4,5-Trichlorophenol	UG/L	20		U		20
PW-A	2,4,6-Trichlorophenol	UG/L	5.0		U		5
PW-A	2,4-Dichlorophenol	UG/L	5.0		U		5
PW-A	2,4-Dimethylphenol	UG/L	5.0		U		5
PW-A	2,4-Dinitrophenol	UG/L	20		U		20
PW-A	2,4-Dinitrotoluene	UG/L	5.0		U		5
PW-A	2,6-Dinitrotoluene	UG/L	5.0		U		5
PW-A	2-Chloronaphthalene	UG/L	5.0		U		5
PW-A	2-Chlorophenol	UG/L	5.0		U		5
PW-A	2-Methylnaphthalene	UG/L	5.0		U		5
PW-A	2-Methylphenol	UG/L	5.0		U		5
PW-A	2-Nitroaniline	UG/L	20		U		20
PW-A	2-Nitrophenol	UG/L	5.0		U		5
PW-A	3,3'-Dichlorobenzidine	UG/L	5.0		U	UJ	5
PW-A	3-Nitroaniline	UG/L	20		U		20
PW-A	4,6-Dinitro-2-methylphenol	UG/L	20		U		20
PW-A	4-Bromophenyl-phenylether	UG/L	5.0		U		5
PW-A	4-Chloro-3-methylphenol	UG/L	5.0		U		5
PW-A	4-Chloroaniline	UG/L	5.0		U	UJ	5
PW-A	4-Chlorophenyl-phenyl ether	UG/L	5.0		U		5
PW-A	4-Methylphenol	UG/L	5.0		U		5
PW-A	4-Nitroaniline	UG/L	20		U		20
PW-A	4-Nitrophenol	UG/L	20		U		20
PW-A	Acenaphthene	UG/L	5.0		U		5
PW-A	Acenaphthylene	UG/L	5.0		U		5
PW-A	Acetophenone	UG/L	NA		U		5
PW-A	Anthracene	UG/L	5.0		U		5
PW-A	Atazine	UG/L	NA		U	UJ	5
PW-A	Benzo(a)anthracene	UG/L	5.0		U		5
PW-A	Benzo(a)pyrene	UG/L	5.0		U		5
PW-A	Benzo(b)fluoranthene	UG/L	5.0		U		5
PW-A	Benzo(g,h,i)perylene	UG/L	5.0		U		5
PW-A	Benzo(k)fluoranthene	UG/L	5.0		U		5
PW-A	Bis(2-chloroethoxy)methane	UG/L	5.0		U		5
PW-A	bis(2-chloroethyl) ether	UG/L	5.0		U		5
PW-A	Bis(2-ethylhexyl)phthalate	UG/L	5.0		U		5
PW-A	Butylbenzylphthalate	UG/L	5.0		U		5
PW-A	Chrysene	UG/L	5.0		U		5
PW-A	Dibenzo(a,h)anthracene	UG/L	5.0		U		5
PW-A	Dibenzofuran	UG/L	5.0		U		5
PW-A	Diethylphthalate	UG/L	5.0		U		5
PW-A	Dimethylphthalate	UG/L	5.0		U		5
PW-A	Di-n-butylphthalate	UG/L	5.0		U		5
PW-A	Di-n-octylphthalate	UG/L	5.0		U		5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

Page 1

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Semivolatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-A	Fluoranthene	UG/L	5.0		U		5
PW-A	Fluorene	UG/L	5.0		U		5
PW-A	Hexachlorobenzene	UG/L	5.0		U		5
PW-A	Hexachlorobutadiene	UG/L	5.0		U		5
PW-A	Hexachlorocyclopentadiene	UG/L	5.0		U		5
PW-A	Hexachloroethane	UG/L	5.0		U		5
PW-A	Indeno(1,2,3-cd)pyrene	UG/L	5.0		U		5
PW-A	Isophorone	UG/L	5.0		U		5
PW-A	Naphthalene	UG/L	5.0		U		5
PW-A	Nitrobenzene	UG/L	5.0		U		5
PW-A	N-Nitroso-di-n-propylamine	UG/L	5.0		U		5
PW-A	N-Nitrosodiphenylamine	UG/L	5.0		U	UJ	5
PW-A	Pentachlorophenol	UG/L	20	15			5
PW-A	Phenanthrene	UG/L	5.0	1.3	J		5
PW-A	Phenol	UG/L	5.0		U		5
PW-A	Pyrene	UG/L	5.0	0.73	J		5
PW-B	1,2,4,5-Tetrachlorobenzene	UG/L	NA		U		5
PW-B	2,2'-oxybis(1-Chloropropane)	UG/L	5.0		U		5
PW-B	2,4,5-Trichlorophenol	UG/L	20		U		20
PW-B	2,4,6-Trichlorophenol	UG/L	5.0		U		5
PW-B	2,4-Dichlorophenol	UG/L	5.0		U		5
PW-B	2,4-Dimethylphenol	UG/L	5.0		U		5
PW-B	2,4-Dinitrophenol	UG/L	20		U		20
PW-B	2,4-Dinitrotoluene	UG/L	5.0		U		5
PW-B	2,6-Dinitrotoluene	UG/L	5.0		U		5
PW-B	2-Chloronaphthalene	UG/L	5.0		U		5
PW-B	2-Chlorophenol	UG/L	5.0		U		5
PW-B	2-Methylnaphthalene	UG/L	5.0		U		5
PW-B	2-Methylphenol	UG/L	5.0		U		5
PW-B	2-Nitroaniline	UG/L	20		U		20
PW-B	2-Nitrophenol	UG/L	5.0		U		5
PW-B	3,3'-Dichlorobenzidine	UG/L	5.0		U	UJ	5
PW-B	3-Nitroaniline	UG/L	20		U		20
PW-B	4,6-Dinitro-2-methylphenol	UG/L	20		U		20
PW-B	4-Bromophenyl-phenylether	UG/L	5.0		U		5
PW-B	4-Chloro-3-methylphenol	UG/L	5.0		U		5
PW-B	4-Chloroaniline	UG/L	5.0		U	UJ	5
PW-B	4-Chlorophenyl-phenyl ether	UG/L	5.0		U		5
PW-B	4-Methylphenol	UG/L	5.0		U		5
PW-B	4-Nitroaniline	UG/L	20		U		20
PW-B	4-Nitrophenol	UG/L	20		U		20
PW-B	Acenaphthene	UG/L	5.0		U		5
PW-B	Acenaphthylene	UG/L	5.0		U		5
PW-B	Acetophenone	UG/L	NA		U		5
PW-B	Anthracene	UG/L	5.0		U		5
PW-B	Atazine	UG/L	NA		U	UJ	5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

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For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Semivolatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-B	Benzo(a)anthracene	UG/L	5.0	U			5
PW-B	Benzo(a)pyrene	UG/L	5.0	U			5
PW-B	Benzo(b)fluoranthene	UG/L	5.0	U			5
PW-B	Benzo(g,h,i)perylene	UG/L	5.0	U			5
PW-B	Benzo(k)fluoranthene	UG/L	5.0	U			5
PW-B	Bis(2-chloroethoxy)methane	UG/L	5.0	U			5
PW-B	bis(2-chloroethyl) ether	UG/L	5.0	U			5
PW-B	Bis(2-ethylhexyl)phthalate	UG/L	5.0	U			5
PW-B	Butylbenzylphthalate	UG/L	5.0	U			5
PW-B	Chrysene	UG/L	5.0	U			5
PW-B	Dibenzo(a,h)anthracene	UG/L	5.0	U			5
PW-B	Dibenzofuran	UG/L	5.0	U			5
PW-B	Diethylphthalate	UG/L	5.0	U			5
PW-B	Dimethylphthalate	UG/L	5.0	U			5
PW-B	Di-n-butylphthalate	UG/L	5.0	U			5
PW-B	Di-n-octylphthalate	UG/L	5.0	U			5
PW-B	Fluoranthene	UG/L	5.0	U			5
PW-B	Fluorene	UG/L	5.0	U			5
PW-B	Hexachlorobenzene	UG/L	5.0	U			5
PW-B	Hexachlorobutadiene	UG/L	5.0	U			5
PW-B	Hexachlorocyclopentadiene	UG/L	5.0	U			5
PW-B	Hexachloroethane	UG/L	5.0	U			5
PW-B	Indeno(1,2,3-cd)pyrene	UG/L	5.0	U			5
PW-B	Isophorone	UG/L	5.0	U			5
PW-B	Naphthalene	UG/L	5.0	U			5
PW-B	Nitrobenzene	UG/L	5.0	U			5
PW-B	N-Nitroso-di-n-propylamine	UG/L	5.0	U			5
PW-B	N-Nitrosodiphenylamine	UG/L	5.0	U	UJ		5
PW-B	Pentachlorophenol	UG/L	20	U			5
PW-B	Phenanthrene	UG/L	5.0	U			5
PW-B	Phenol	UG/L	5.0	U			5
PW-B	Pyrene	UG/L	5.0	U			5
PW-C	1,2,4,5-Tetrachlorobenzene	UG/L	NA	U			5
PW-C	2,2'-oxybis(1-Chloropropane)	UG/L	5.0	U			5
PW-C	2,4,5-Trichlorophenol	UG/L	20	U			20
PW-C	2,4,6-Trichlorophenol	UG/L	5.0	U			5
PW-C	2,4-Dichlorophenol	UG/L	5.0	U			5
PW-C	2,4-Dimethylphenol	UG/L	5.0	U			5
PW-C	2,4-Dinitrophenol	UG/L	20	U			20
PW-C	2,4-Dinitrotoluene	UG/L	5.0	U			5
PW-C	2,6-Dinitrotoluene	UG/L	5.0	U			5
PW-C	2-Chloronaphthalene	UG/L	5.0	U			5
PW-C	2-Chlorophenol	UG/L	5.0	U			5
PW-C	2-Methylnaphthalene	UG/L	5.0	U			5
PW-C	2-Methylphenol	UG/L	5.0	U			5
PW-C	2-Nitroaniline	UG/L	20	U			20

BOUL = Exceedance of Highest Baseline Detection

NA = Not Applicable

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For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Semivolatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-C	2-Nitrophenol	UG/L	5.0		U		5
PW-C	3,3'-Dichlorobenzidine	UG/L	5.0		U	UJ	5
PW-C	3-Nitroaniline	UG/L	20		U		20
PW-C	4,6-Dinitro-2-methylphenol	UG/L	20		U		20
PW-C	4-Bromophenyl-phenylether	UG/L	5.0		U		5
PW-C	4-Chloro-3-methylphenol	UG/L	5.0		U		5
PW-C	4-Chloroaniline	UG/L	5.0		U	UJ	5
PW-C	4-Chlorophenyl-phenyl ether	UG/L	5.0		U		5
PW-C	4-Methylphenol	UG/L	5.0		U		5
PW-C	4-Nitroaniline	UG/L	20		U		20
PW-C	4-Nitrophenol	UG/L	20		U		20
PW-C	Acenaphthene	UG/L	5.0		U		5
PW-C	Acenaphthylene	UG/L	5.0		U		5
PW-C	Acetophenone	UG/L	NA		U		5
PW-C	Anthracene	UG/L	5.0		U		5
PW-C	Atazine	UG/L	NA		U	UJ	5
PW-C	Benzo(a)anthracene	UG/L	5.0		U		5
PW-C	Benzo(a)pyrene	UG/L	5.0		U		5
PW-C	Benzo(b)fluoranthene	UG/L	5.0		U		5
PW-C	Benzo(g,h,i)perylene	UG/L	5.0		U		5
PW-C	Benzo(k)fluoranthene	UG/L	5.0		U		5
PW-C	Bis(2-chloroethoxy)methane	UG/L	5.0		U		5
PW-C	bis(2-chloroethyl) ether	UG/L	5.0		U		5
PW-C	Bis(2-ethylhexyl)phthalate	UG/L	5.0		U		5
PW-C	Butylbenzylphthalate	UG/L	5.0		U		5
PW-C	Chrysene	UG/L	5.0		U		5
PW-C	Dibenzo(a,h)anthracene	UG/L	5.0		U		5
PW-C	Dibenzofuran	UG/L	5.0		U		5
PW-C	Diethylphthalate	UG/L	5.0		U		5
PW-C	Dimethylphthalate	UG/L	5.0		U		5
PW-C	Di-n-butylphthalate	UG/L	5.0		U		5
PW-C	Di-n-octylphthalate	UG/L	5.0		U		5
PW-C	Fluoranthene	UG/L	5.0		U		5
PW-C	Fluorene	UG/L	5.0		U		5
PW-C	Hexachlorobenzene	UG/L	5.0		U		5
PW-C	Hexachlorobutadiene	UG/L	5.0		U		5
PW-C	Hexachlorocyclopentadiene	UG/L	5.0		U		5
PW-C	Hexachloroethane	UG/L	5.0		U		5
PW-C	Indeno(1,2,3-cd)pyrene	UG/L	5.0		U		5
PW-C	Isophorone	UG/L	5.0		U		5
PW-C	Naphthalene	UG/L	5.0		U		5
PW-C	Nitrobenzene	UG/L	5.0		U		5
PW-C	N-Nitroso-di-n-propylamine	UG/L	5.0		U		5
PW-C	N-Nitrosodiphenylamine	UG/L	5.0		U	UJ	5
PW-C	Pentachlorophenol	UG/L	20		U		5
PW-C	Phenanthrene	UG/L	5.0		U		5

BOED = Exceedance of Highest Baseline Detection

NA = Not Applicable

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For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Semivolatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-C	Phenol	UG/L	5.0		U		5
PW-C	Pyrene	UG/L	5.0		U		5
PW-D	1,2,4,5-Tetrachlorobenzene	UG/L	NA		U		5
PW-D	2,2'-oxybis(1-Chloropropane)	UG/L	5.0		U		5
PW-D	2,4,5-Trichlorophenol	UG/L	20		U		20
PW-D	2,4,6-Trichlorophenol	UG/L	5.0		U		5
PW-D	2,4-Dichlorophenol	UG/L	5.0		U		5
PW-D	2,4-Dimethylphenol	UG/L	5.0		U		5
PW-D	2,4-Dinitrophenol	UG/L	20		U		20
PW-D	2,4-Dinitrotoluene	UG/L	5.0		U		5
PW-D	2,6-Dinitrotoluene	UG/L	5.0		U		5
PW-D	2-Chloronaphthalene	UG/L	5.0		U		5
PW-D	2-Chlorophenol	UG/L	5.0		U		5
PW-D	2-Methylnaphthalene	UG/L	5.0		U		5
PW-D	2-Methylphenol	UG/L	5.0		U		5
PW-D	2-Nitroaniline	UG/L	20		U		20
PW-D	2-Nitrophenol	UG/L	5.0		U		5
PW-D	3,3'-Dichlorobenzidine	UG/L	5.0		U	UJ	5
PW-D	3-Nitroaniline	UG/L	20		U		20
PW-D	4,6-Dinitro-2-methylphenol	UG/L	20		U		20
PW-D	4-Bromophenyl-phenylether	UG/L	5.0		U		5
PW-D	4-Chloro-3-methylphenol	UG/L	5.0		U		5
PW-D	4-Chloroaniline	UG/L	5.0		U	UJ	5
PW-D	4-Chlorophenyl-phenyl ether	UG/L	5.0		U		5
PW-D	4-Methylphenol	UG/L	5.0		U		5
PW-D	4-Nitroaniline	UG/L	20		U		20
PW-D	4-Nitrophenol	UG/L	20		U		20
PW-D	Acenaphthene	UG/L	5.0		U		5
PW-D	Acenaphthylene	UG/L	5.0		U		5
PW-D	Acetophenone	UG/L	NA		U		5
PW-D	Anthracene	UG/L	5.0		U		5
PW-D	Atazine	UG/L	NA		U	UJ	5
PW-D	Benzo(a)anthracene	UG/L	5.0		U		5
PW-D	Benzo(a)pyrene	UG/L	5.0		U		5
PW-D	Benzo(b)fluoranthene	UG/L	5.0		U		5
PW-D	Benzo(g,h,i)perylene	UG/L	5.0		U		5
PW-D	Benzo(k)fluoranthene	UG/L	5.0		U		5
PW-D	Bis(2-chloroethoxy)methane	UG/L	5.0		U		5
PW-D	bis(2-chloroethyl) ether	UG/L	5.0		U		5
PW-D	Bis(2-ethylhexyl)phthalate	UG/L	5.0		U		5
PW-D	Butylbenzylphthalate	UG/L	5.0		U		5
PW-D	Chrysene	UG/L	5.0		U		5
PW-D	Dibenzo(a,h)anthracene	UG/L	5.0		U		5
PW-D	Dibenzofuran	UG/L	5.0		U		5
PW-D	Diethylphthalate	UG/L	5.0		U		5
PW-D	Dimethylphthalate	UG/L	5.0		U		5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

Page 5

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Semivolatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-D	Di-n-butylphthalate	UG/L	5.0		U		5
PW-D	Di-n-octylphthalate	UG/L	5.0		U		5
PW-D	Fluoranthene	UG/L	5.0		U		5
PW-D	Fluorene	UG/L	5.0		U		5
PW-D	Hexachlorobenzene	UG/L	5.0		U		5
PW-D	Hexachlorobutadiene	UG/L	5.0		U		5
PW-D	Hexachlorocyclopentadiene	UG/L	5.0		U		5
PW-D	Hexachloroethane	UG/L	5.0		U		5
PW-D	Indeno(1,2,3-cd)pyrene	UG/L	5.0		U		5
PW-D	Isophorone	UG/L	5.0		U		5
PW-D	Naphthalene	UG/L	5.0		U		5
PW-D	Nitrobenzene	UG/L	5.0		U		5
PW-D	N-Nitroso-di-n-propylamine	UG/L	5.0		U		.5
PW-D	N-Nitrosodiphenylamine	UG/L	5.0		U	UJ	5
PW-D	Pentachlorophenol	UG/L	20		U		5
PW-D	Phenanthrene	UG/L	5.0		U		5
PW-D	Phenol	UG/L	5.0		U		5
PW-D	Pyrene	UG/L	5.0		U		5
PW-Y	1,2,4,5-Tetrachlorobenzene	UG/L	NA		U		5
PW-Y	2,2'-oxybis(1-Chloropropane)	UG/L	5.0		U		5
PW-Y	2,4,5-Trichlorophenol	UG/L	20		U		20
PW-Y	2,4,6-Trichlorophenol	UG/L	5.0		U		5
PW-Y	2,4-Dichlorophenol	UG/L	5.0		U		5
PW-Y	2,4-Dimethylphenol	UG/L	5.0		U		5
PW-Y	2,4-Dinitrophenol	UG/L	20		U		20
PW-Y	2,4-Dinitrotoluene	UG/L	5.0		U		5
PW-Y	2,6-Dinitrotoluene	UG/L	5.0		U		5
PW-Y	2-Chloronaphthalene	UG/L	5.0		U		5
PW-Y	2-Chlorophenol	UG/L	5.0		U		5
PW-Y	2-Methylnaphthalene	UG/L	5.0		U		5
PW-Y	2-Methylphenol	UG/L	5.0		U		5
PW-Y	2-Nitroaniline	UG/L	20		U		20
PW-Y	2-Nitrophenol	UG/L	5.0		U		5
PW-Y	3,3'-Dichlorobenzidine	UG/L	5.0		U		5
PW-Y	3-Nitroaniline	UG/L	20		U		20
PW-Y	4,6-Dinitro-2-methylphenol	UG/L	20		U		20
PW-Y	4-Bromophenyl-phenylether	UG/L	5.0		U		5
PW-Y	4-Chloro-3-methylphenol	UG/L	5.0		U		5
PW-Y	4-Chloroaniline	UG/L	5.0		U		5
PW-Y	4-Chlorophenyl-phenyl ether	UG/L	5.0		U		5
PW-Y	4-Methylphenol	UG/L	5.0		U		5
PW-Y	4-Nitroaniline	UG/L	20		U		20
PW-Y	4-Nitrophenol	UG/L	20		U		20
PW-Y	Acenaphthene	UG/L	5.0		U		5
PW-Y	Acenaphthylene	UG/L	5.0		U		5
PW-Y	Acetophenone	UG/L	NA		U		5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

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For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Semivolatile Organic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

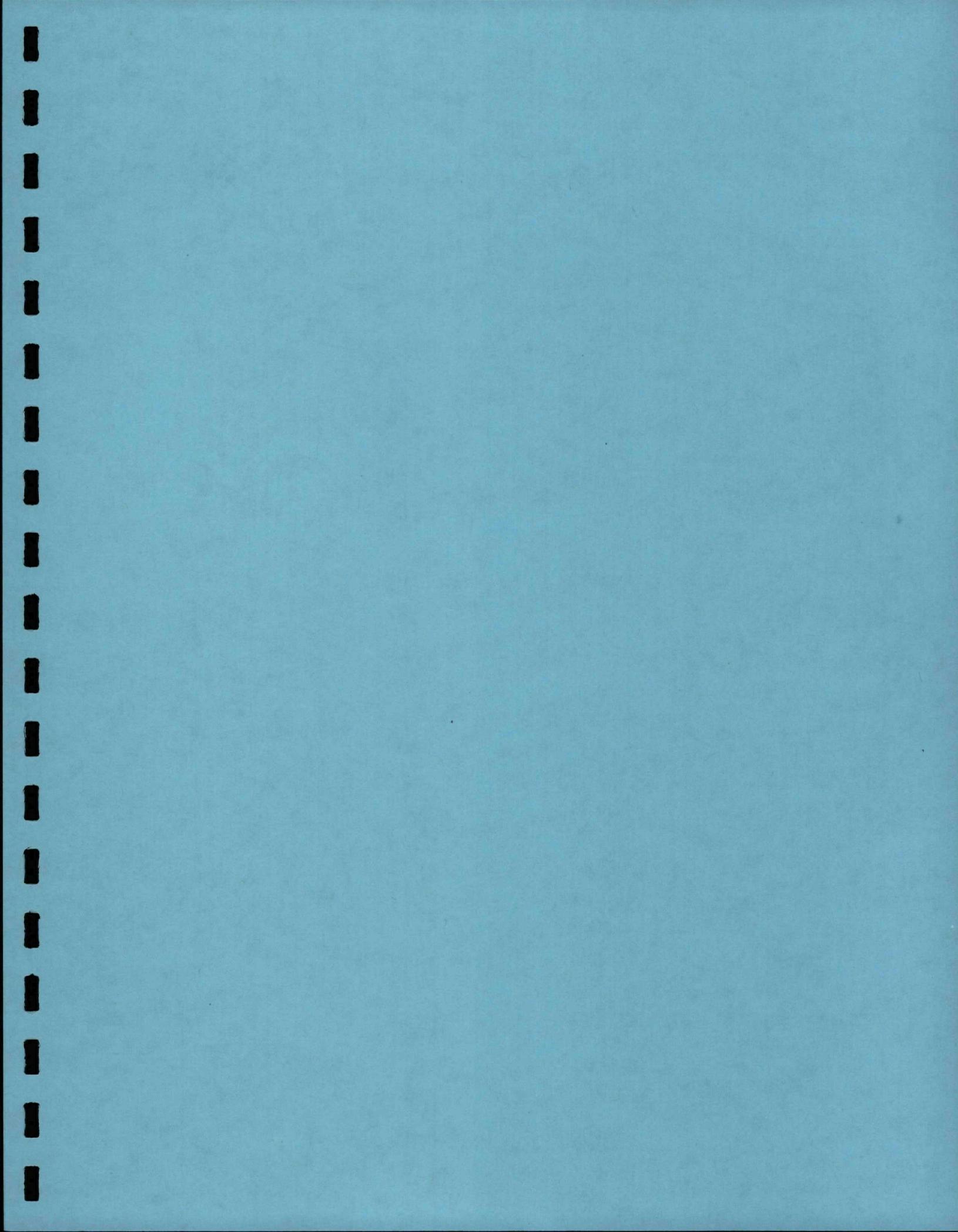
Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-Y	Anthracene	UG/L	5.0		U		5
PW-Y	Atazine	UG/L	NA		U	UJ	5
PW-Y	Benzo(a)anthracene	UG/L	5.0		U		5
PW-Y	Benzo(a)pyrene	UG/L	5.0		U		5
PW-Y	Benzo(b)fluoranthene	UG/L	5.0		U		5
PW-Y	Benzo(g,h,i)perylene	UG/L	5.0		U		5
PW-Y	Benzo(k)fluoranthene	UG/L	5.0		U		5
PW-Y	Bis(2-chloroethoxy)methane	UG/L	5.0		U		5
PW-Y	bis(2-chloroethyl) ether	UG/L	5.0		U		5
PW-Y	Bis(2-ethylhexyl)phthalate	UG/L	5.0	1.2	JB	UB	5
PW-Y	Butylbenzylphthalate	UG/L	5.0		U		5
PW-Y	Chrysene	UG/L	5.0		U		5
PW-Y	Dibenz(a,h)anthracene	UG/L	5.0		U		5
PW-Y	Dibenzofuran	UG/L	5.0		U		5
PW-Y	Diethylphthalate	UG/L	5.0		U		5
PW-Y	Dimethylphthalate	UG/L	5.0		U		5
PW-Y	Di-n-butylphthalate	UG/L	5.0		U		5
PW-Y	Di-n-octylphthalate	UG/L	5.0		U		5
PW-Y	Fluoranthene	UG/L	5.0		U		5
PW-Y	Fluorene	UG/L	5.0		U		5
PW-Y	Hexachlorobenzene	UG/L	5.0		U		5
PW-Y	Hexachlorobutadiene	UG/L	5.0		U		5
PW-Y	Hexachlorocyclopentadiene	UG/L	5.0		U		5
PW-Y	Hexachloroethane	UG/L	5.0		U		5
PW-Y	Indeno(1,2,3-cd)pyrene	UG/L	5.0		U		5
PW-Y	Isophorone	UG/L	5.0		U		5
PW-Y	Naphthalene	UG/L	5.0		U		5
PW-Y	Nitrobenzene	UG/L	5.0		U		5
PW-Y	N-Nitroso-di-n-propylamine	UG/L	5.0		U		5
PW-Y	N-Nitrosodiphenylamine	UG/L	5.0		U		5
PW-Y	Pentachlorophenol	UG/L	20	2.7	J		5
PW-Y	Phenanthrene	UG/L	5.0		U		5
PW-Y	Phenol	UG/L	5.0		U		5
PW-Y	Pyrene	UG/L	5.0		U		5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

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For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.



Residential Well Semivolatile Organic Results - November 2003
Re-sampling of PW-A and PW-Y
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	November 2003			
				Result	LQ	DQ	Detect Limit
PW-A	1,2,4,5-Tetrachlorobenzene	UG/L	NA		U		5
PW-A	2,2'-oxybis(1-Chloropropane)	UG/L	5.0		U		5
PW-A	2,4,5-Trichlorophenol	UG/L	20		U		20
PW-A	2,4,6-Trichlorophenol	UG/L	5.0		U		5
PW-A	2,4-Dichlorophenol	UG/L	5.0		U		5
PW-A	2,4-Dimethylphenol	UG/L	5.0		U		5
PW-A	2,4-Dinitrophenol	UG/L	20		U		20
PW-A	2,4-Dinitrotoluene	UG/L	5.0		U		5
PW-A	2,6-Dinitrotoluene	UG/L	5.0		U		5
PW-A	2-Chloronaphthalene	UG/L	5.0		U		5
PW-A	2-Chlorophenol	UG/L	5.0		U		5
PW-A	2-Methylnaphthalene	UG/L	5.0		U		5
PW-A	2-Methylphenol	UG/L	5.0		U		5
PW-A	2-Nitroaniline	UG/L	20		U		20
PW-A	2-Nitrophenol	UG/L	5.0		U		5
PW-A	3,3'-Dichlorobenzidine	UG/L	5.0		U	UJ	5
PW-A	3-Nitroaniline	UG/L	20		U		20
PW-A	4,6-Dinitro-2-methylphenol	UG/L	20		U		20
PW-A	4-Bromophenyl-phenylether	UG/L	5.0		U		5
PW-A	4-Chloro-3-methylphenol	UG/L	5.0		U		5
PW-A	4-Chloroaniline	UG/L	5.0		U	UJ	5
PW-A	4-Chlorophenyl-phenyl ether	UG/L	5.0		U	UJ	5
PW-A	4-Methylphenol	UG/L	5.0		U		5
PW-A	4-Nitroaniline	UG/L	20		U		20
PW-A	4-Nitrophenol	UG/L	20		U	UJ	20
PW-A	Acenaphthene	UG/L	5.0		U		5
PW-A	Acenaphthylene	UG/L	5.0		U		5
PW-A	Acetophenone	UG/L	NA		U		5
PW-A	Anthracene	UG/L	5.0		U		5
PW-A	Atazine	UG/L	NA		U	UJ	5
PW-A	Benzo(a)anthracene	UG/L	5.0		U	UJ	5
PW-A	Benzo(a)pyrene	UG/L	5.0		U		5
PW-A	Benzo(b)fluoranthene	UG/L	5.0		U		5
PW-A	Benzo(g,h,i)perylene	UG/L	5.0		U		5
PW-A	Benzo(k)fluoranthene	UG/L	5.0		U		5
PW-A	Bis(2-chloroethoxy)methane	UG/L	5.0		U		5
PW-A	bis(2-chloroethyl) ether	UG/L	5.0		U		5
PW-A	Bis(2-ethylhexyl)phthalate	UG/L	5.0		U		5
PW-A	Butylbenzylphthalate	UG/L	5.0		U		5
PW-A	Chrysene	UG/L	5.0		U		5
PW-A	Dibenzo(a,h)anthracene	UG/L	5.0		U		5
PW-A	Dibenzofuran	UG/L	5.0		U		5
PW-A	Diethylphthalate	UG/L	5.0		U		5
PW-A	Dimethylphthalate	UG/L	5.0		U		5
PW-A	Di-n-butylphthalate	UG/L	5.0		U		5
PW-A	Di-n-octylphthalate	UG/L	5.0		U	UJ	5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

Page 1

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Semivolatile Organic Results - November 2003
Re-sampling of PW-A and PW-Y
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	November 2003			
				Result	LQ	DQ	Detect Limit
PW-A	Fluoranthene	UG/L	5.0		U		5
PW-A	Fluorene	UG/L	5.0		U		5
PW-A	Hexachlorobenzene	UG/L	5.0		U	UJ	5
PW-A	Hexachlorobutadiene	UG/L	5.0		U		5
PW-A	Hexachlorocyclopentadiene	UG/L	5.0		U		5
PW-A	Hexachloroethane	UG/L	5.0		U		5
PW-A	Indeno(1,2,3-cd)pyrene	UG/L	5.0		U		5
PW-A	Isophorone	UG/L	5.0		U		5
PW-A	Naphthalene	UG/L	5.0		U		5
PW-A	Nitrobenzene	UG/L	5.0		U	UJ	5
PW-A	N-Nitroso-di-n-propylamine	UG/L	5.0		U		5
PW-A	N-Nitrosodiphenylamine	UG/L	5.0		U	UJ	5
PW-A	Pentachlorophenol	UG/L	20		U		5
PW-A	Phenanthrene	UG/L	5.0		U		5
PW-A	Phenol	UG/L	5.0		U	UJ	5
PW-A	Pyrene	UG/L	5.0		U		5
PW-Y	1,2,4,5-Tetrachlorobenzene	UG/L	NA		U		5
PW-Y	2,2'-oxybis(1-Chloropropane)	UG/L	5.0		U		5
PW-Y	2,4,5-Trichlorophenol	UG/L	20		U		20
PW-Y	2,4,6-Trichlorophenol	UG/L	5.0		U		5
PW-Y	2,4-Dichlorophenol	UG/L	5.0		U		5
PW-Y	2,4-Dimethylphenol	UG/L	5.0		U		5
PW-Y	2,4-Dinitrophenol	UG/L	20		U		20
PW-Y	2,4-Dinitrotoluene	UG/L	5.0		U		5
PW-Y	2,6-Dinitrotoluene	UG/L	5.0		U		5
PW-Y	2-Chloronaphthalene	UG/L	5.0		U		5
PW-Y	2-Chlorophenol	UG/L	5.0		U		5
PW-Y	2-Methylnaphthalene	UG/L	5.0		U		5
PW-Y	2-Methylphenol	UG/L	5.0		U		5
PW-Y	2-Nitroaniline	UG/L	20		U		20
PW-Y	2-Nitrophenol	UG/L	5.0		U		5
PW-Y	3,3'-Dichlorobenzidine	UG/L	5.0		U	R	5
PW-Y	3-Nitroaniline	UG/L	20		U		20
PW-Y	4,6-Dinitro-2-methylphenol	UG/L	20		U		20
PW-Y	4-Bromophenyl-phenylether	UG/L	5.0		U		5
PW-Y	4-Chloro-3-methylphenol	UG/L	5.0		U		5
PW-Y	4-Chloroaniline	UG/L	5.0		U	R	5
PW-Y	4-Chlorophenyl-phenyl ether	UG/L	5.0		U	UJ	5
PW-Y	4-Methylphenol	UG/L	5.0		U		5
PW-Y	4-Nitroaniline	UG/L	20		U		20
PW-Y	4-Nitrophenol	UG/L	20		U	UJ	20
PW-Y	Acenaphthene	UG/L	5.0		U		5
PW-Y	Acenaphthylene	UG/L	5.0		U		5
PW-Y	Acetophenone	UG/L	NA		U		5
PW-Y	Anthracene	UG/L	5.0		U		5
PW-Y	Atazine	UG/L	NA		U	UJ	5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

Page 2

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Semivolatile Organic Results - November 2003
Re-sampling of PW-A and PW-Y
American Chemical Services NPL Site
Griffith, Indiana

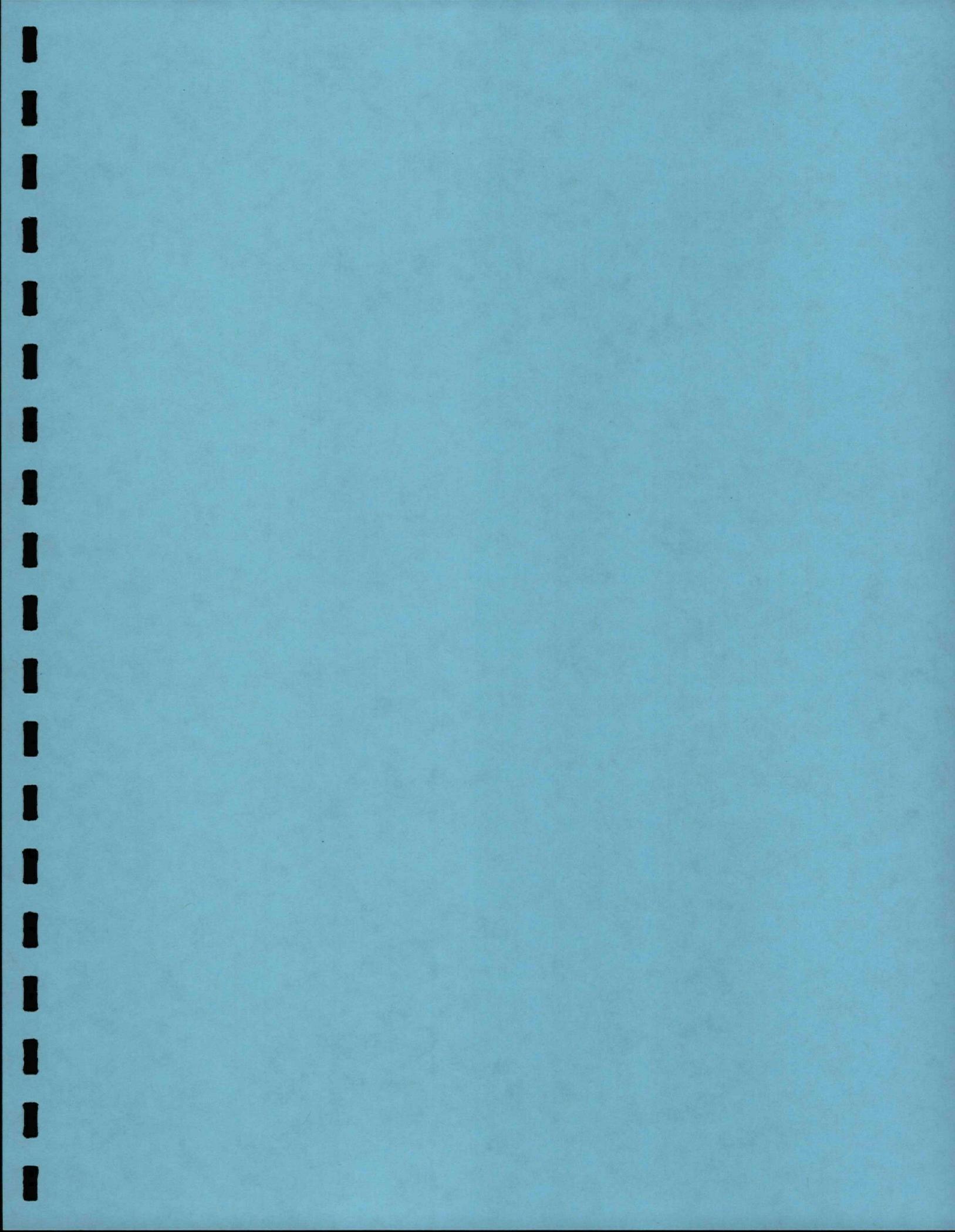
Well	Analyte	Units	Highest Detect during Baseline	November 2003			
				Result	LQ	DQ	Detect Limit
PW-Y	Benzo(a)anthracene	UG/L	5.0		U		5
PW-Y	Benzo(a)pyrene	UG/L	5.0		U		5
PW-Y	Benzo(b)fluoranthene	UG/L	5.0		U		5
PW-Y	Benzo(g,h,i)perylene	UG/L	5.0		U		5
PW-Y	Benzo(k)fluoranthene	UG/L	5.0		U		5
PW-Y	Bis(2-chloroethoxy)methane	UG/L	5.0		U		5
PW-Y	bis(2-chloroethyl) ether	UG/L	5.0		U		5
PW-Y	Bis(2-ethylhexyl)phthalate	UG/L	5.0		U		5
PW-Y	Butylbenzylphthalate	UG/L	5.0		U		5
PW-Y	Chrysene	UG/L	5.0		U		5
PW-Y	Dibenz(a,h)anthracene	UG/L	5.0		U		5
PW-Y	Dibenzofuran	UG/L	5.0		U		5
PW-Y	Diethylphthalate	UG/L	5.0		U		5
PW-Y	Dimethylphthalate	UG/L	5.0		U		5
PW-Y	Di-n-butylphthalate	UG/L	5.0		U		5
PW-Y	Di-n-octylphthalate	UG/L	5.0		U	UJ	5
PW-Y	Fluoranthene	UG/L	5.0		U		5
PW-Y	Fluorene	UG/L	5.0		U		5
PW-Y	Hexachlorobenzene	UG/L	5.0		U	UJ	5
PW-Y	Hexachlorobutadiene	UG/L	5.0		U		5
PW-Y	Hexachlorocyclopentadiene	UG/L	5.0		U	R	5
PW-Y	Hexachloroethane	UG/L	5.0		U		5
PW-Y	Indeno(1,2,3-cd)pyrene	UG/L	5.0		U		5
PW-Y	Isophorone	UG/L	5.0		U		5
PW-Y	Naphthalene	UG/L	5.0		U		5
PW-Y	Nitrobenzene	UG/L	5.0		U	UJ	5
PW-Y	N-Nitroso-di-n-propylamine	UG/L	5.0		U		5
PW-Y	N-Nitrosodiphenylamine	UG/L	5.0		U	UJ	5
PW-Y	Pentachlorophenol	UG/L	20		U		5
PW-Y	Phenanthrene	UG/L	5.0		U		5
PW-Y	Phenol	UG/L	5.0		U		5
PW-Y	Pyrene	UG/L	5.0		U		5

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

Page 3

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.



Residential Well Pesticide and PCB Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-A	4,4'-DDD	UG/L	0.02		U		0.02
PW-A	4,4'-DDE	UG/L	0.02		U		0.02
PW-A	4,4'-DDT	UG/L	0.02	0.0003	JP	J	0.02
PW-A	Aldrin	UG/L	0.01		U	UJ	0.01
PW-A	alpha-BHC	UG/L	0.01		U		0.01
PW-A	alpha-Chlordane	UG/L	0.01	0.0019	BJP	UBJ	0.01
PW-A	Aroclor-1016	UG/L	0.20		U		0.2
PW-A	Aroclor-1221	UG/L	0.40		U		0.4
PW-A	Aroclor-1232	UG/L	0.20		U		0.2
PW-A	Aroclor-1242	UG/L	0.20		U		0.2
PW-A	Aroclor-1248	UG/L	0.20		U		0.2
PW-A	Aroclor-1254	UG/L	0.20		U		0.2
PW-A	Aroclor-1260	UG/L	0.20		U		0.2
PW-A	beta-BHC	UG/L	0.01		U		0.01
PW-A	delta-BHC	UG/L	0.01		U		0.01
PW-A	Dieldrin	UG/L	0.02	0.00093	BJP	UBJ	0.02
PW-A	Endosulfan I	UG/L	0.01		U		0.01
PW-A	Endosulfan II	UG/L	0.02		U		0.02
PW-A	Endosulfan sulfate	UG/L	0.02	0.00045	JP	J	0.02
PW-A	Endrin	UG/L	0.02	0.0017	J	J	0.02
PW-A	Endrin aldehyde	UG/L	0.02	0.00099	JP	J	0.02
PW-A	Endrin ketone	UG/L	0.02	0.00098	BJP	UBJ	0.02
PW-A	gamma-BHC	UG/L	0.01		U	UJ	0.01
PW-A	gamma-Chlordane	UG/L	0.01	0.00058	JP	J	0.01
PW-A	Heptachlor	UG/L	0.01		U	UJ	0.01
PW-A	Heptachlor epoxide	UG/L	0.01		U		0.01
PW-A	Methoxychlor	UG/L	0.10		U		0.1
PW-A	Toxaphene	UG/L	1.0		U		1
PW-B	4,4'-DDD	UG/L	0.02		U		0.02
PW-B	4,4'-DDE	UG/L	0.02		U		0.02
PW-B	4,4'-DDT	UG/L	0.02		U		0.02
PW-B	Aldrin	UG/L	0.01		U	UJ	0.01
PW-B	alpha-BHC	UG/L	0.01	0.0011	JP	J	0.01
PW-B	alpha-Chlordane	UG/L	0.01	0.0031	BJP	UBJ	0.01
PW-B	Aroclor-1016	UG/L	0.20		U		0.2
PW-B	Aroclor-1221	UG/L	0.40		U		0.4
PW-B	Aroclor-1232	UG/L	0.20		U		0.2
PW-B	Aroclor-1242	UG/L	0.20		U		0.2
PW-B	Aroclor-1248	UG/L	0.20		U		0.2
PW-B	Aroclor-1254	UG/L	0.20		U		0.2
PW-B	Aroclor-1260	UG/L	0.20		U		0.2
PW-B	beta-BHC	UG/L	0.01		U		0.01
PW-B	delta-BHC	UG/L	0.01		U		0.01
PW-B	Dieldrin	UG/L	0.02	0.0012	BJ	UB	0.02
PW-B	Endosulfan I	UG/L	0.01		U		0.01
PW-B	Endosulfan II	UG/L	0.02		U		0.02

EBOED = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Pesticide and PCB Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-B	Endosulfan sulfate	UG/L	0.02		U		0.02
PW-B	Endrin	UG/L	0.02		U		0.02
PW-B	Endrin aldehyde	UG/L	0.02		U		0.02
PW-B	Endrin ketone	UG/L	0.02	0.0046	BJP	UBJ	0.02
PW-B	gamma-BHC	UG/L	0.01		U	UJ	0.01
PW-B	gamma-Chlordane	UG/L	0.01		U		0.01
PW-B	Heptachlor	UG/L	0.01		U	UJ	0.01
PW-B	Heptachlor epoxide	UG/L	0.01		U		0.01
PW-B	Methoxychlor	UG/L	0.10		U		0.1
PW-B	Toxaphene	UG/L	1.0		U		1
PW-C	4,4'-DDD	UG/L	0.02		U		0.019
PW-C	4,4'-DDE	UG/L	0.02		U		0.019
PW-C	4,4'-DDT	UG/L	0.02		U		0.019
PW-C	Aldrin	UG/L	0.01		U	UJ	0.0093
PW-C	alpha-BHC	UG/L	0.01		U		0.0093
PW-C	alpha-Chlordane	UG/L	0.01	0.00082	BJP	UBJ	0.0093
PW-C	Aroclor-1016	UG/L	0.20		U		0.19
PW-C	Aroclor-1221	UG/L	0.40		U		0.37
PW-C	Aroclor-1232	UG/L	0.20		U		0.19
PW-C	Aroclor-1242	UG/L	0.20		U		0.19
PW-C	Aroclor-1248	UG/L	0.20		U		0.19
PW-C	Aroclor-1254	UG/L	0.20		U		0.19
PW-C	Aroclor-1260	UG/L	0.20		U		0.19
PW-C	beta-BHC	UG/L	0.01		U		0.0093
PW-C	delta-BHC	UG/L	0.01		U		0.0093
PW-C	Dieldrin	UG/L	0.02	0.00026	BJP	UBJ	0.019
PW-C	Endosulfan I	UG/L	0.01		U		0.0093
PW-C	Endosulfan II	UG/L	0.02		U		0.019
PW-C	Endosulfan sulfate	UG/L	0.02		U		0.019
PW-C	Endrin	UG/L	0.02		U		0.019
PW-C	Endrin aldehyde	UG/L	0.02		U		0.019
PW-C	Endrin ketone	UG/L	0.02	0.00046	BJP	UBJ	0.019
PW-C	gamma-BHC	UG/L	0.01		U	UJ	0.0093
PW-C	gamma-Chlordane	UG/L	0.01	0.00042	JP	J	0.0093
PW-C	Heptachlor	UG/L	0.01		U	UJ	0.0093
PW-C	Heptachlor epoxide	UG/L	0.01		U		0.0093
PW-C	Methoxychlor	UG/L	0.10		U		0.093
PW-C	Toxaphene	UG/L	1.0		U		0.93
PW-D	4,4'-DDD	UG/L	0.02		U		0.02
PW-D	4,4'-DDE	UG/L	0.02		U		0.02
PW-D	4,4'-DDT	UG/L	0.02		U		0.02
PW-D	Aldrin	UG/L	0.01		U	UJ	0.01
PW-D	alpha-BHC	UG/L	0.01		U		0.01
PW-D	alpha-Chlordane	UG/L	0.01	0.0012	BJP	UBJ	0.01
PW-D	Aroclor-1016	UG/L	0.20		U		0.2
PW-D	Aroclor-1221	UG/L	0.40		U		0.4

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Pesticide and PCB Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-D	Aroclor-1232	UG/L	0.20		U		0.2
PW-D	Aroclor-1242	UG/L	0.20		U		0.2
PW-D	Aroclor-1248	UG/L	0.20		U		0.2
PW-D	Aroclor-1254	UG/L	0.20		U		0.2
PW-D	Aroclor-1260	UG/L	0.20		U		0.2
PW-D	beta-BHC	UG/L	0.01	0.00086	BJP	UBJ	0.01
PW-D	delta-BHC	UG/L	0.01		U		0.01
PW-D	Dieldrin	UG/L	0.02	0.0012	BJP	UBJ	0.02
PW-D	Endosulfan I	UG/L	0.01		U		0.01
PW-D	Endosulfan II	UG/L	0.02		U		0.02
PW-D	Endosulfan sulfate	UG/L	0.02		U		0.02
PW-D	Endrin	UG/L	0.02		U		0.02
PW-D	Endrin aldehyde	UG/L	0.02		U		0.02
PW-D	Endrin ketone	UG/L	0.02	0.00029	BJP	UBJ	0.02
PW-D	gamma-BHC	UG/L	0.01		U	UJ	0.01
PW-D	gamma-Chlordane	UG/L	0.01		U		0.01
PW-D	Heptachlor	UG/L	0.01		U	UJ	0.01
PW-D	Heptachlor epoxide	UG/L	0.01		U		0.01
PW-D	Methoxychlor	UG/L	0.10		U		0.1
PW-D	Toxaphene	UG/L	1.0		U		1
PW-Y	4,4'-DDD	UG/L	NA		U		0.02
PW-Y	4,4'-DDE	UG/L	NA		U		0.02
PW-Y	4,4'-DDT	UG/L	NA		U		0.02
PW-Y	Aldrin	UG/L	NA		U	UJ	0.01
PW-Y	alpha-BHC	UG/L	NA		U		0.01
PW-Y	alpha-Chlordane	UG/L	NA		U		0.01
PW-Y	Aroclor-1016	UG/L	NA		U		0.2
PW-Y	Aroclor-1221	UG/L	NA		U		0.4
PW-Y	Aroclor-1232	UG/L	NA		U		0.2
PW-Y	Aroclor-1242	UG/L	NA		U		0.2
PW-Y	Aroclor-1248	UG/L	NA		U		0.2
PW-Y	Aroclor-1254	UG/L	NA		U		0.2
PW-Y	Aroclor-1260	UG/L	NA		U		0.2
PW-Y	beta-BHC	UG/L	NA	0.0027	BJP	UBJ	0.01
PW-Y	delta-BHC	UG/L	NA	0.004	JP	J	0.01
PW-Y	Dieldrin	UG/L	NA	0.0013	BJP	UBJ	0.02
PW-Y	Endosulfan I	UG/L	NA	0.0022	J		0.01
PW-Y	Endosulfan II	UG/L	NA	0.0022	J		0.02
PW-Y	Endosulfan sulfate	UG/L	NA	0.00091	JP	J	0.02
PW-Y	Endrin	UG/L	NA		U		0.02
PW-Y	Endrin aldehyde	UG/L	NA		U		0.02
PW-Y	Endrin ketone	UG/L	NA	0.002	BJP	UBJ	0.02
PW-Y	gamma-BHC	UG/L	NA		U	UJ	0.01
PW-Y	gamma-Chlordane	UG/L	NA		U		0.01
PW-Y	Heptachlor	UG/L	NA		U	UJ	0.01
PW-Y	Heptachlor epoxide	UG/L	NA		U		0.01

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

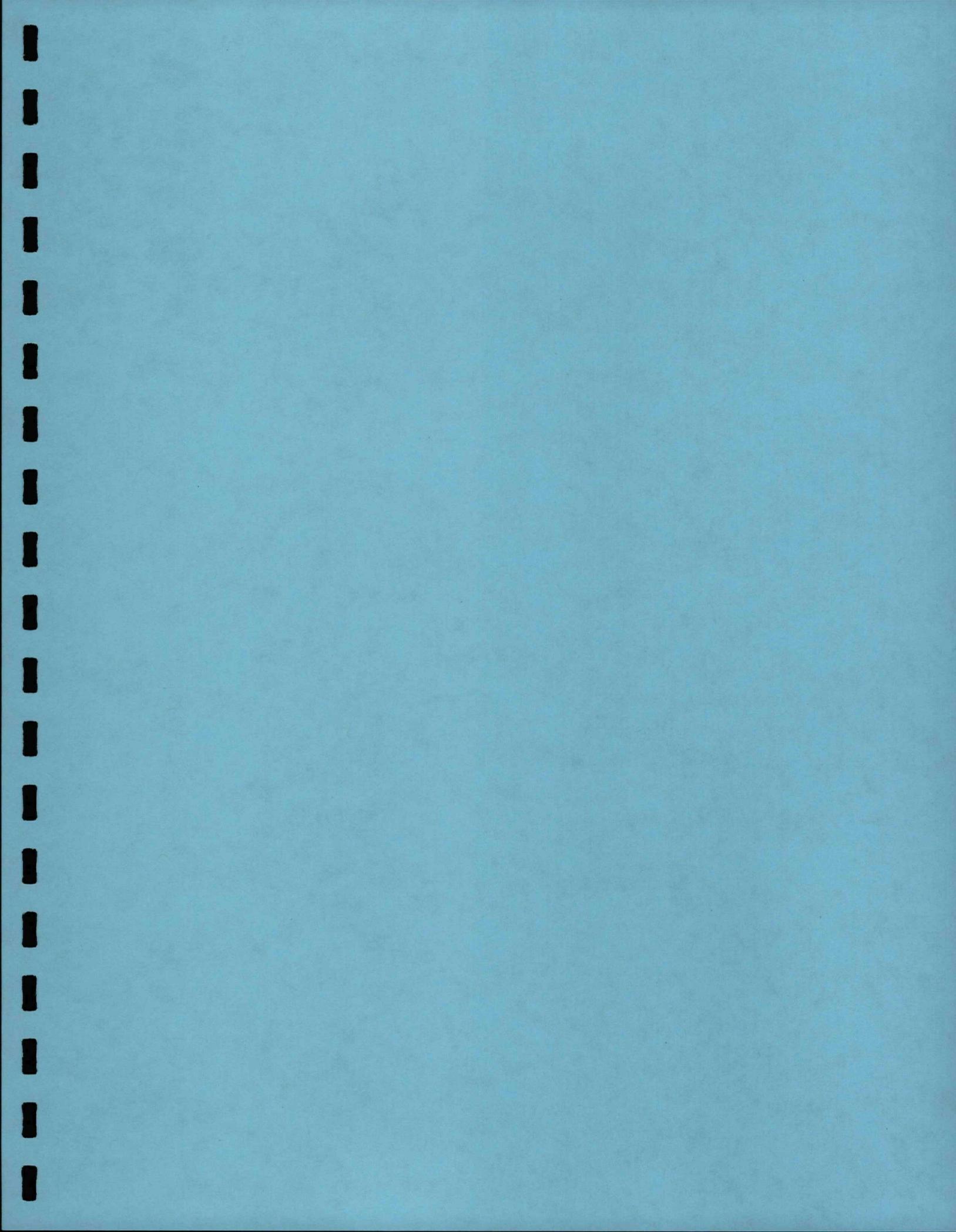
Residential Well Pesticide and PCB Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-Y	Methoxychlor	UG/L	NA		U		0.1
PW-Y	Toxaphene	UG/L	NA		U		1

BOLD = Exceedance of Highest Baseline Detection
NA = Not Applicable

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For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.



Residential Well Inorganic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-A	Aluminum	UG/L	11		U		200
PW-A	Antimony	UG/L	1.0		U		10
PW-A	Arsenic	UG/L	2.0		U		10
PW-A	Barium	UG/L	119	140		B	10
PW-A	Beryllium	UG/L	1.0		U		5
PW-A	Cadmium	UG/L	1.0		U		5
PW-A	Calcium	UG/L	93,400	87,400		B	5,000
PW-A	Chromium (Total)	UG/L	1.0		U		5
PW-A	Cobalt	UG/L	1.0		U		5
PW-A	Copper	UG/L	4.8	4	B	UB	5
PW-A	Cyanide (Total)	UG/L	10		U		10
PW-A	Iron	UG/L	2,870	2,200			100
PW-A	Lead	UG/L	1.0	1.5	B	UB	3
PW-A	Magnesium	UG/L	43,500	45,600		B	5,000
PW-A	Manganese	UG/L	54	36.9		B	10
PW-A	Mercury	UG/L	0.20		U		0.2
PW-A	Nickel	UG/L	2.5		U		5
PW-A	Potassium	UG/L	1,860	2,300	B	UB	5,000
PW-A	Selenium	UG/L	2.0	2.5	UN		5
PW-A	Silver	UG/L	1.0		U		5
PW-A	Sodium	UG/L	15,600	20,400		B	5,000
PW-A	Thallium	UG/L	3.0	3.7	UN	UJ	10
PW-A	Vanadium	UG/L	1.0	1.7	B	UB	20
PW-A	Zinc	UG/L	121	22.2	E	UBJ	20
PW-B	Aluminum	UG/L	19		U		200
PW-B	Antimony	UG/L	1.0		U		10
PW-B	Arsenic	UG/L	2.0		U		10
PW-B	Barium	UG/L	121	136		UB	10
PW-B	Beryllium	UG/L	1.0		U		5
PW-B	Cadmium	UG/L	1.0		U		5
PW-B	Calcium	UG/L	91,200	86,700		B	5,000
PW-B	Chromium (Total)	UG/L	1.0	1.1	B	UB	5
PW-B	Cobalt	UG/L	1.0		U		5
PW-B	Copper	UG/L	2.3	48.1		B	5
PW-B	Cyanide (Total)	UG/L	10		U		10
PW-B	Iron	UG/L	2,170	3,080			100
PW-B	Lead	UG/L	1.0	1.29		B	3
PW-B	Magnesium	UG/L	42,700	41,700		B	5,000
PW-B	Manganese	UG/L	56	59.5		B	10
PW-B	Mercury	UG/L	0.20		U		0.2
PW-B	Nickel	UG/L	3.3	1.1	B		5
PW-B	Potassium	UG/L	1,760	2,730	B	UB	5,000
PW-B	Selenium	UG/L	2.0	2.5	UN		5
PW-B	Silver	UG/L	1.0	1	B		5
PW-B	Sodium	UG/L	14,200	20,200		B	5,000

BOLE = Exceedance of Highest Baseline Detection

NA = Not Applicable

Page 1

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

CAS/LRH

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Residential Well Inorganic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-B	Thallium	UG/L	3.0	3.7	UN	UJ	10
PW-B	Vanadium	UG/L	1.0	1.7	B	UB	20
PW-B	Zinc	UG/L	9.6	25.3	E	UBJ	20
PW-C	Aluminum	UG/L	25		U		200
PW-C	Antimony	UG/L	1.0		U		10
PW-C	Arsenic	UG/L	2.0		U		10
PW-C	Barium	UG/L	166	170		B	10
PW-C	Beryllium	UG/L	1.0		U		5
PW-C	Cadmium	UG/L	1.0		U		5
PW-C	Calcium	UG/L	93,200	89,100		B	5,000
PW-C	Chromium (Total)	UG/L	1.0	1	B	UB	5
PW-C	Cobalt	UG/L	1.0		U		5
PW-C	Copper	UG/L	32		U		5
PW-C	Cyanide (Total)	UG/L	10		U		10
PW-C	Iron	UG/L	3,030	2,640			100
PW-C	Lead	UG/L	1.9		U		3
PW-C	Magnesium	UG/L	53,700	51,400		B	5,000
PW-C	Manganese	UG/L	35	36.9		B	10
PW-C	Mercury	UG/L	0.20		U		0.2
PW-C	Nickel	UG/L	1.0		U		5
PW-C	Potassium	UG/L	2,730	3,370	B	UB	5,000
PW-C	Selenium	UG/L	2.0	2.25	UN		5
PW-C	Silver	UG/L	1.0		U		5
PW-C	Sodium	UG/L	23,300	19,700		B	5,000
PW-C	Thallium	UG/L	3.0	3.7	UN	UJ	10
PW-C	Vanadium	UG/L	1.0	1.2	B	UB	20
PW-C	Zinc	UG/L	79	9.8	BE	UBJ	20
PW-D	Aluminum	UG/L	125		U		200
PW-D	Antimony	UG/L	1.0		U		10
PW-D	Arsenic	UG/L	2.0		U		10
PW-D	Barium	UG/L	157	160		B	10
PW-D	Beryllium	UG/L	1.0		U		5
PW-D	Cadmium	UG/L	1.1		U		5
PW-D	Calcium	UG/L	96,800	96,100		B	5,000
PW-D	Chromium (Total)	UG/L	1.0		U		5
PW-D	Cobalt	UG/L	1.0		U		5
PW-D	Copper	UG/L	155		U		5
PW-D	Cyanide (Total)	UG/L	10		U		10
PW-D	Iron	UG/L	3,190	2,440			100
PW-D	Lead	UG/L	23		U		3
PW-D	Magnesium	UG/L	50,900	50,400		B	5,000
PW-D	Manganese	UG/L	48	36.8		B	10
PW-D	Mercury	UG/L	0.20		U		0.2
PW-D	Nickel	UG/L	4.3		U		5
PW-D	Potassium	UG/L	2,660	3,310	B	UB	5,000

BOLD = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

Residential Well Inorganic Results - September 2003
Comparison to Maximum Baseline Detections
American Chemical Services NPL Site
Griffith, Indiana

Well	Analyte	Units	Highest Detect during Baseline	September 2003			
				Result	LQ	DQ	Detect Limit
PW-D	Selenium	UG/L	2.0	2.5	UN		5
PW-D	Silver	UG/L	1.0		U		5
PW-D	Sodium	UG/L	24,100	19,600		B	5,000
PW-D	Thallium	UG/L	3.0	1.3	UN	UJ	10
PW-D	Vanadium	UG/L	1.0	2.1	B	UB	20
PW-D	Zinc	UG/L	1,580	16.7	BE	UBJ	20
PW-Y	Aluminum	UG/L	10	7.0	B		200
PW-Y	Antimony	UG/L	1.0		U		10
PW-Y	Arsenic	UG/L	2.0		U		10
PW-Y	Barium	UG/L	132	24.8		UB	10
PW-Y	Beryllium	UG/L	1.0		U		5
PW-Y	Cadmium	UG/L	1.0		U		5
PW-Y	Calcium	UG/L	81,750	37,700		B	5,000
PW-Y	Chromium (Total)	UG/L	2.4		U		5
PW-Y	Cobalt	UG/L	1.0		U		5
PW-Y	Copper	UG/L	2.0	56.7	B		5
PW-Y	Cyanide (Total)	UG/L	10	2.2	B		10
PW-Y	Iron	UG/L	2,550	23.8	B		100
PW-Y	Lead	UG/L	1.0	2.6	B	UB	3
PW-Y	Magnesium	UG/L	43,100	11,900		B	5,000
PW-Y	Manganese	UG/L	29	3	B	UB	10
PW-Y	Mercury	UG/L	0.20		U		0.2
PW-Y	Nickel	UG/L	3.4		U		5
PW-Y	Potassium	UG/L	2,765	2,410	B	UB	5,000
PW-Y	Selenium	UG/L	2.1	2.5	UN		5
PW-Y	Silver	UG/L	1.0		U		5
PW-Y	Sodium	UG/L	23,300	9,090		UB	5,000
PW-Y	Thallium	UG/L	2.3	3.7	UN	UJ	10
PW-Y	Vanadium	UG/L	1.0	1.2	B	UB	20
PW-Y	Zinc	UG/L	25	27.3	E	JB	20

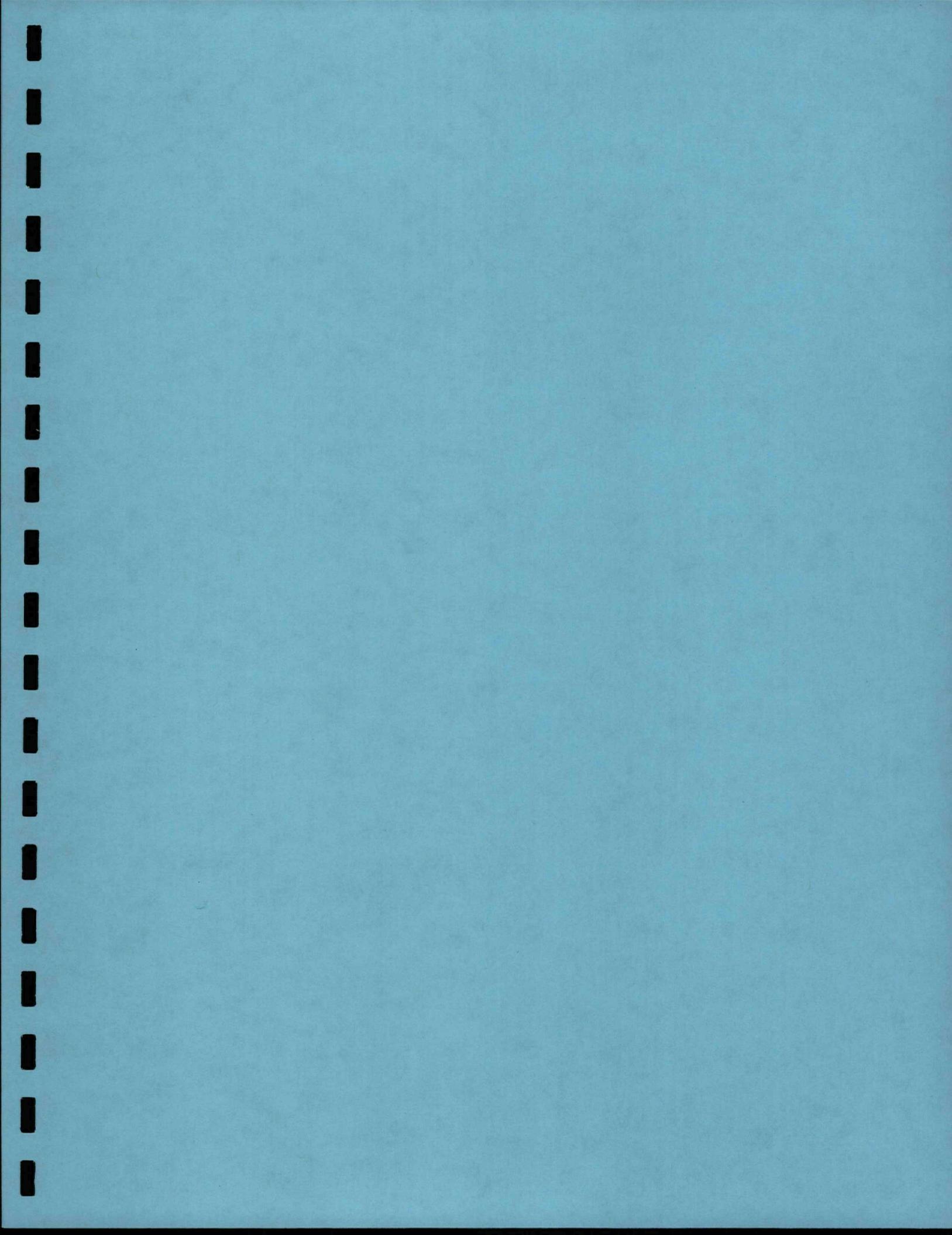
BOED = Exceedance of Highest Baseline Detection

NA = Not Applicable

For an explanation of Laboratory Qualifiers (LQ) and Data Validation Qualifier (DQ), please see Appendices C and D.

CAS/LRH

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Appendix B
Concentration Vs. Time Plots

Upper Aquifer Monitoring Wells

MW06
MW11
MW14
MW15
MW17
MW19
MW42
MW43
MW44
MW45
MW48
MW49

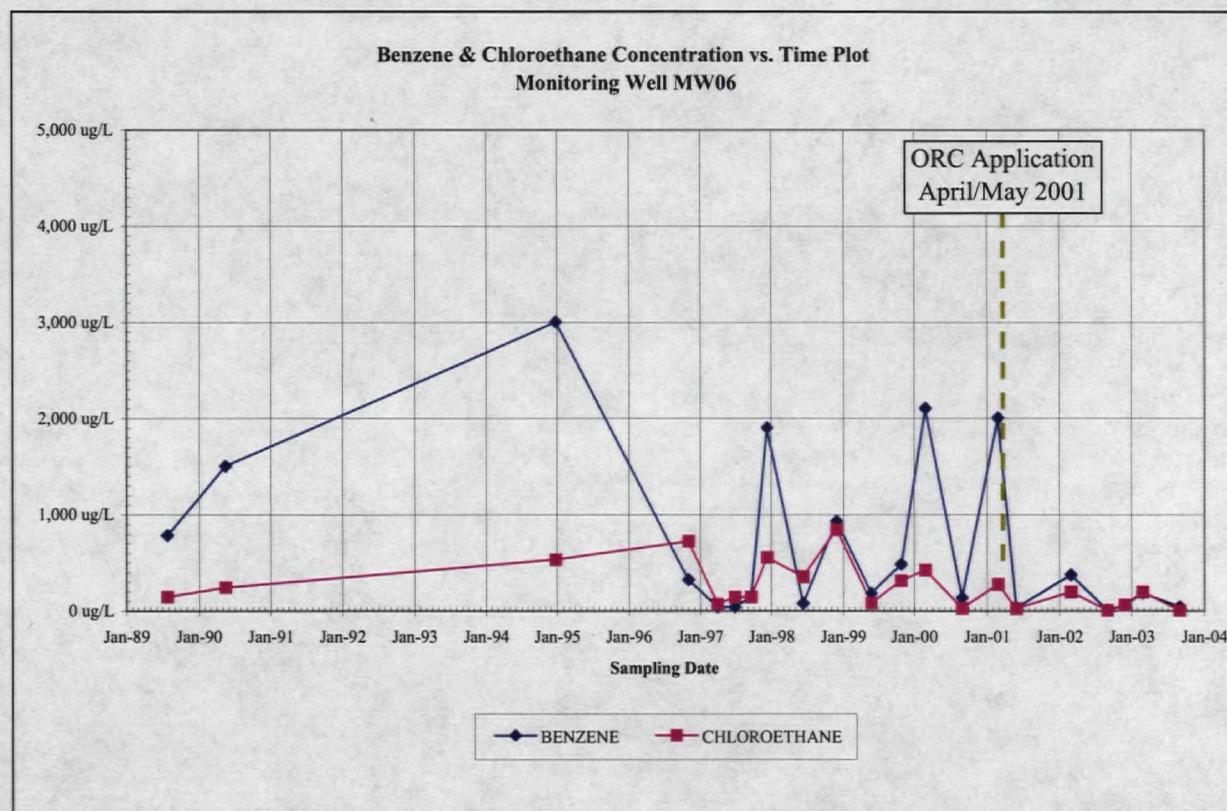
Lower Aquifer Monitoring Wells

MW08
MW09R
MW10C
MW23
MW28
MW29
MW30
MW31
MW32
MW33
MW51
MW52
MW53
MW54R
MW55
MW56

**Concentration vs. Time Plot for
Upper Aquifer Monitoring Well MW06**

DATE	BENZENE	CHLOROETHANE
BASELINE	320	720
August-89	780 ug/L	140 ug/L
May-90	1,500 ug/L	240 ug/L
December-94	3,000 ug/L	530 ug/L
November-96	320 ug/L	720 ug/L
April-97	35 ug/L	67 ug/L
July-97	39 ug/L	140 ug/L
September-97	140 ug/L	140 ug/L
December-97	1,900 ug/L	550 ug/L
June-98	72 ug/L	350 ug/L
December-98	930 ug/L	840 ug/L
June-99	180 ug/L	78 ug/L
November-99	480 ug/L	310 ug/L
March-00	2,100 ug/L	420 ug/L
September-00	130 ug/L	22 ug/L
March-01	2,000 ug/L	270 ug/L
June-01	26 ug/L	18 ug/L
March-02	370 ug/L	190 ug/L
September-02	BDL	BDL
December-02	54 ug/L	56 ug/L
March-03	180 ug/L	190 ug/L
September-03	39 ug/L	BDL

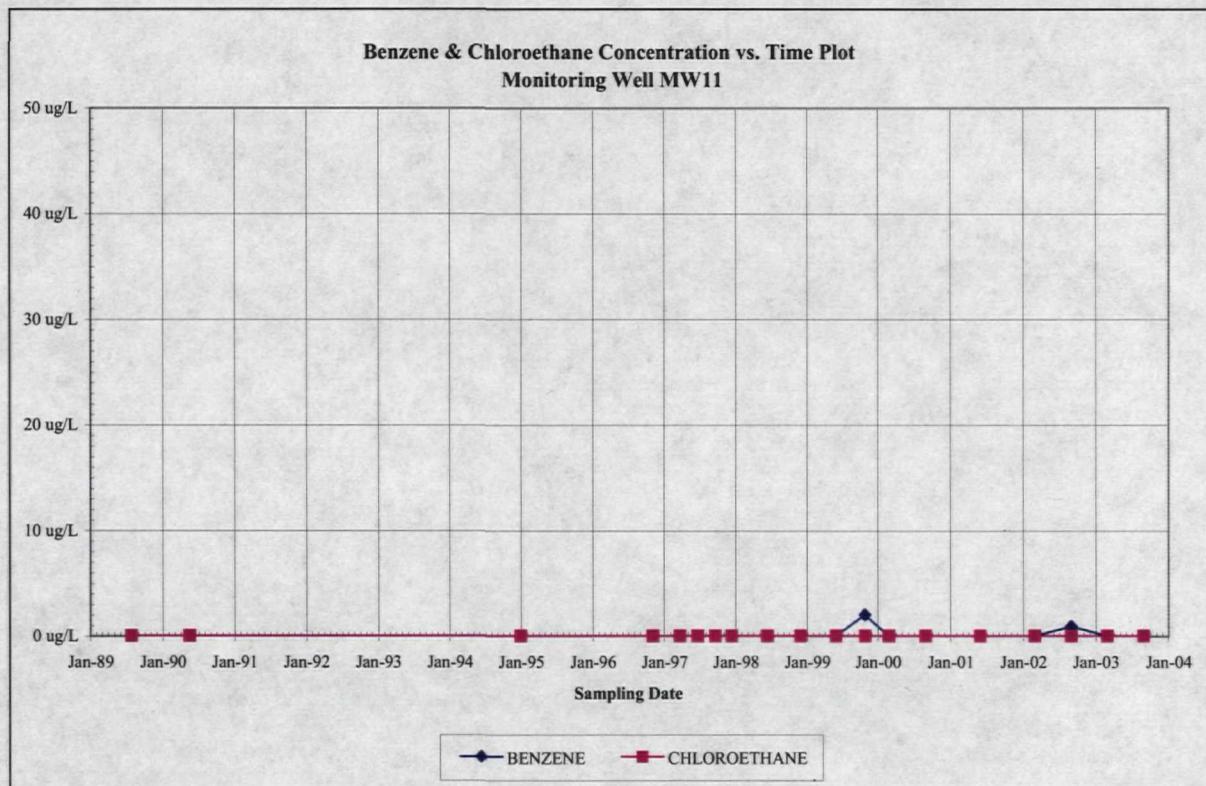
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Upper Aquifer Monitoring Well MW11**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89	BDL	BDL
May-90	BDL	BDL
January-95	BDL	BDL
November-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	2 ug/L	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	0.9 ug/L	BDL
March-03	BDL	BDL
September-03	BDL	BDL

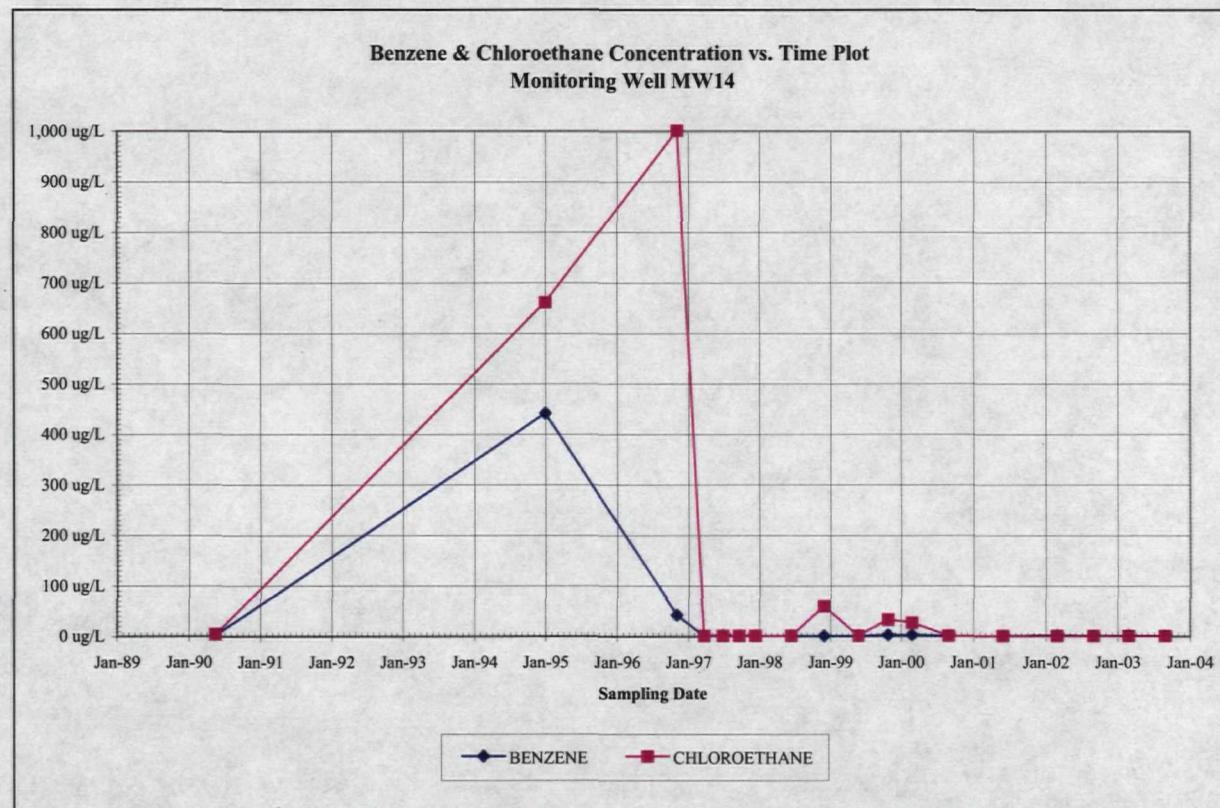
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Upper Aquifer Monitoring Well MW14**

DATE	BENZENE	CHLOROETHANE
BASELINE	41	1000
August-89		
May-90	2 ug/L	3 ug/L
January-95	440 ug/L	660 ug/L
November-96	41 ug/L	1,000 ug/L
March-97	BDL	BDL
June-97	1 ug/L	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	59 ug/L
June-99	BDL	BDL
November-99	2 ug/L	32 ug/L
March-00	2 ug/L	26 ug/L
September-00	BDL	BDL
June-01	BDL	BDL
March-02	1 ug/L	BDL
September-02	BDL	BDL
March-03	0.7 ug/L	BDL
September-03	BDL	BDL

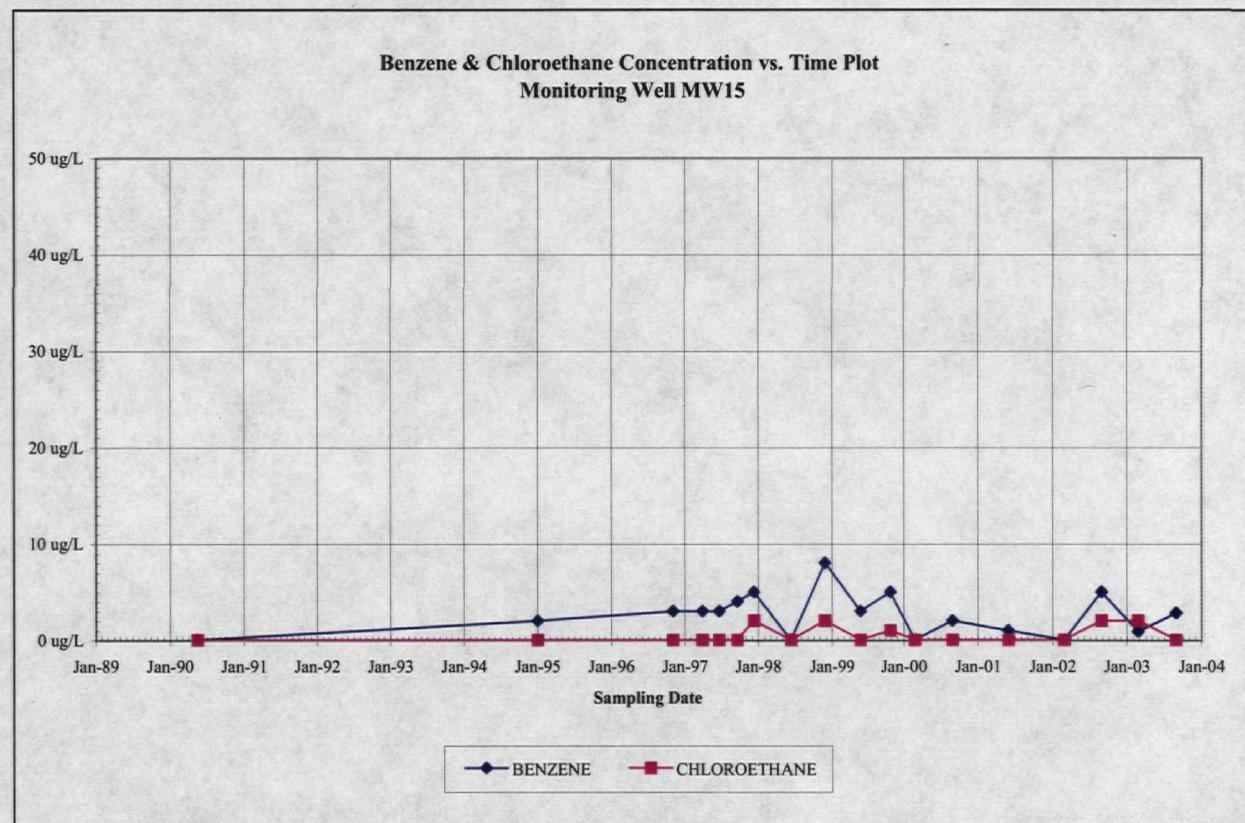
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Upper Aquifer Monitoring Well MW15**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90	BDL	BDL
January-95	2 ug/L	BDL
November-96	3 ug/L	BDL
April-97	3 ug/L	BDL
June-97	3 ug/L	BDL
September-97	4 ug/L	BDL
December-97	5 ug/L	2 ug/L
June-98	BDL	BDL
December-98	8 ug/L	2 ug/L
June-99	3 ug/L	BDL
November-99	5 ug/L	1 ug/L
March-00	BDL	BDL
September-00	2 ug/L	BDL
June-01	1 ug/L	BDL
March-02	BDL	BDL
September-02	5 ug/L	2 ug/L
March-03	1 ug/L	2 ug/L
September-03	2.8 ug/L	BDL

BDL = Below the Detection Limit

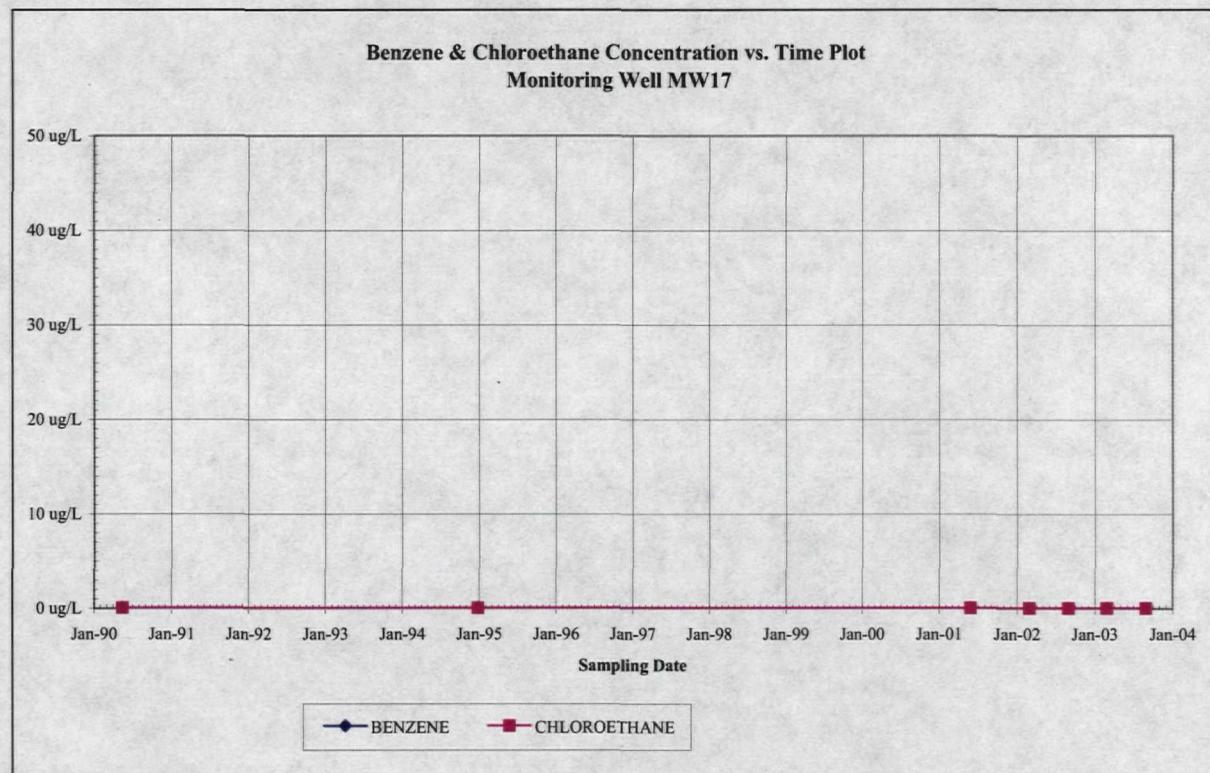


**Concentration vs. Time Plot for
Upper Aquifer Monitoring Well MW17**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
May-90	BDL	BDL
December-94	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	BDL	BDL
September-03	BDL	BDL

BDL = Below the Detection Limit

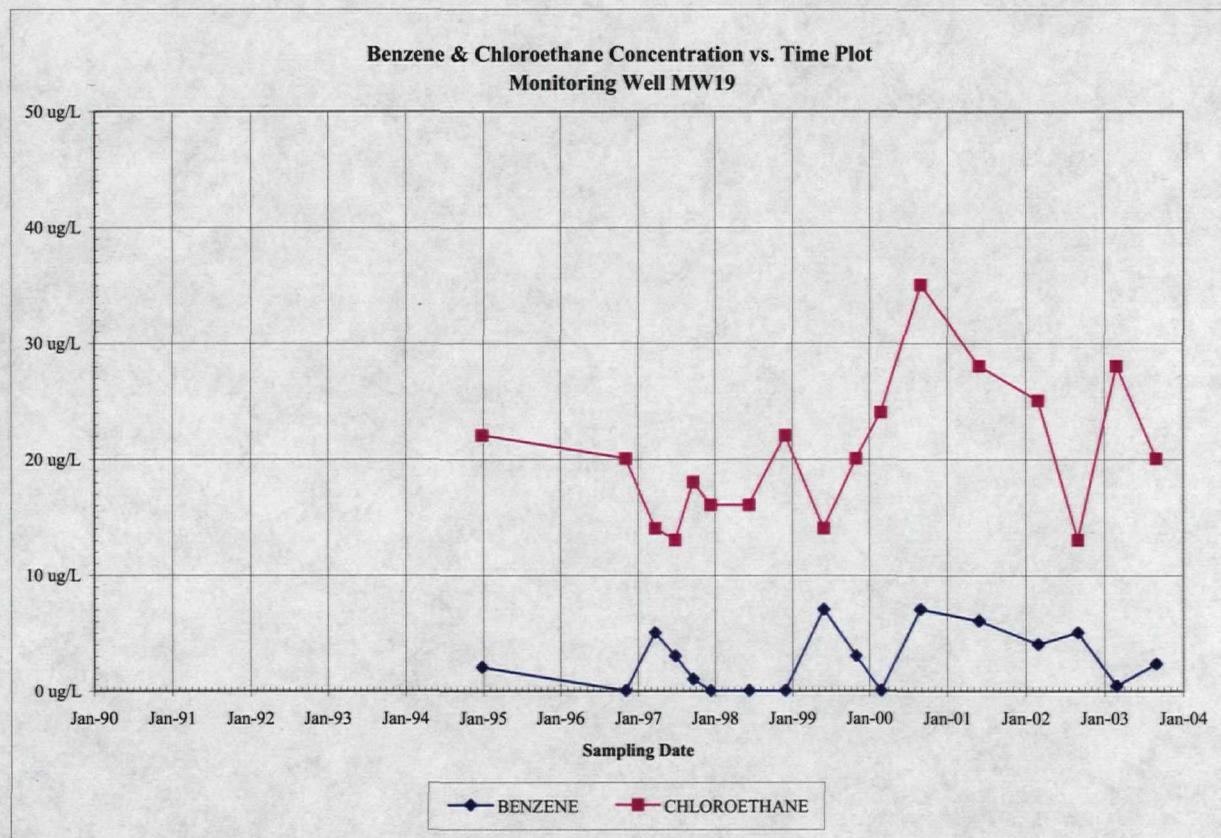
Baseline values adopted from nearby abandoned
well MW18



**Concentration vs. Time Plot for
Upper Aquifer Monitoring Well MW19**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	20
August-89		
May-90		
December-94	2 ug/L	22 ug/L
November-96	BDL	20 ug/L
March-97	5 ug/L	14 ug/L
June-97	3 ug/L	13 ug/L
September-97	1 ug/L	18 ug/L
December-97	BDL	16 ug/L
June-98	BDL	16 ug/L
December-98	BDL	22 ug/L
June-99	7 ug/L	14 ug/L
November-99	3 ug/L	20 ug/L
March-00	BDL	24 ug/L
September-00	7 ug/L	35 ug/L
June-01	6 ug/L	28 ug/L
March-02	4 ug/L	25 ug/L
September-02	5 ug/L	13 ug/L
March-03	0.4 ug/L	28 ug/L
September-03	2.3 ug/L	20 ug/L

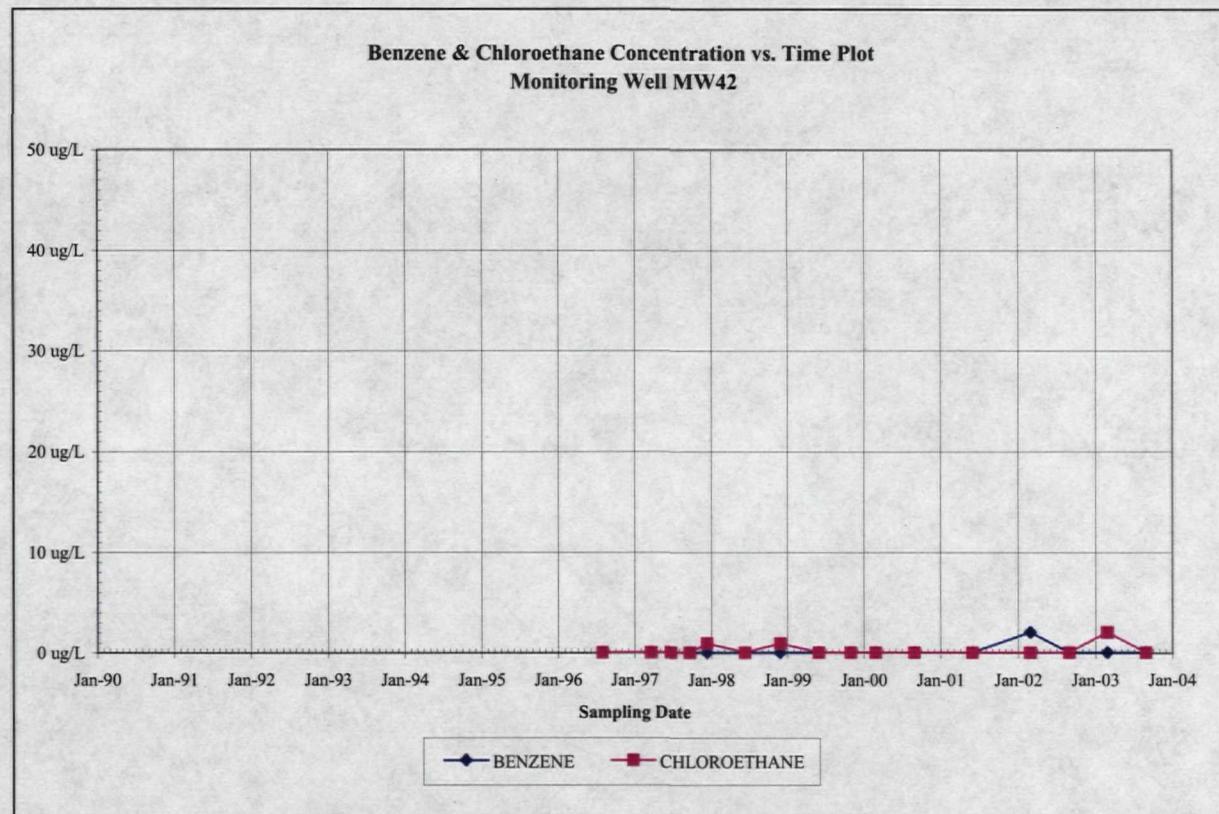
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Upper Aquifer Monitoring Well MW42**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
December-94		
August-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	0.9 ug/L
June-98	BDL	BDL
December-98	BDL	0.9 ug/L
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	2 ug/L	BDL
September-02	BDL	BDL
March-03	BDL	2 ug/L
September-03	BDL	BDL

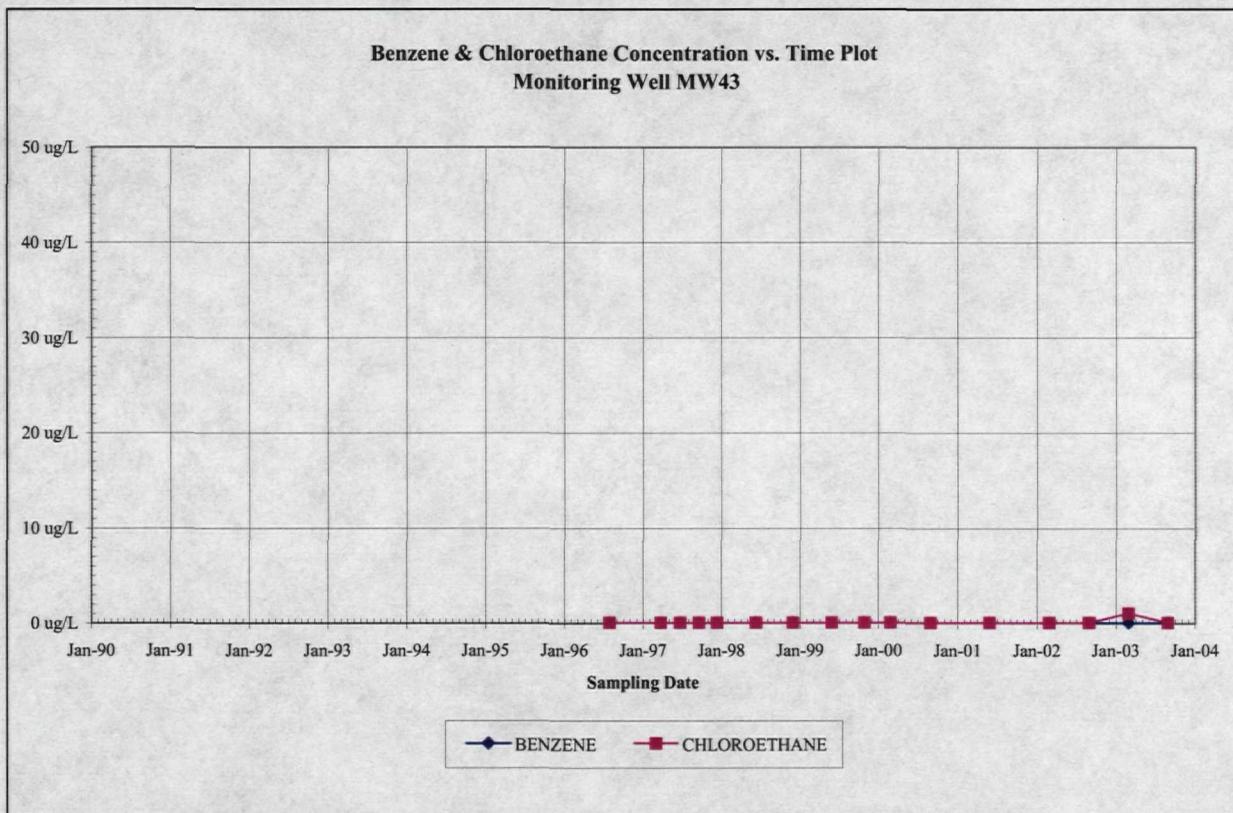
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Upper Aquifer Monitoring Well MW43**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
December-94		
August-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	BDL	1 ug/L
September-03	BDL	BDL

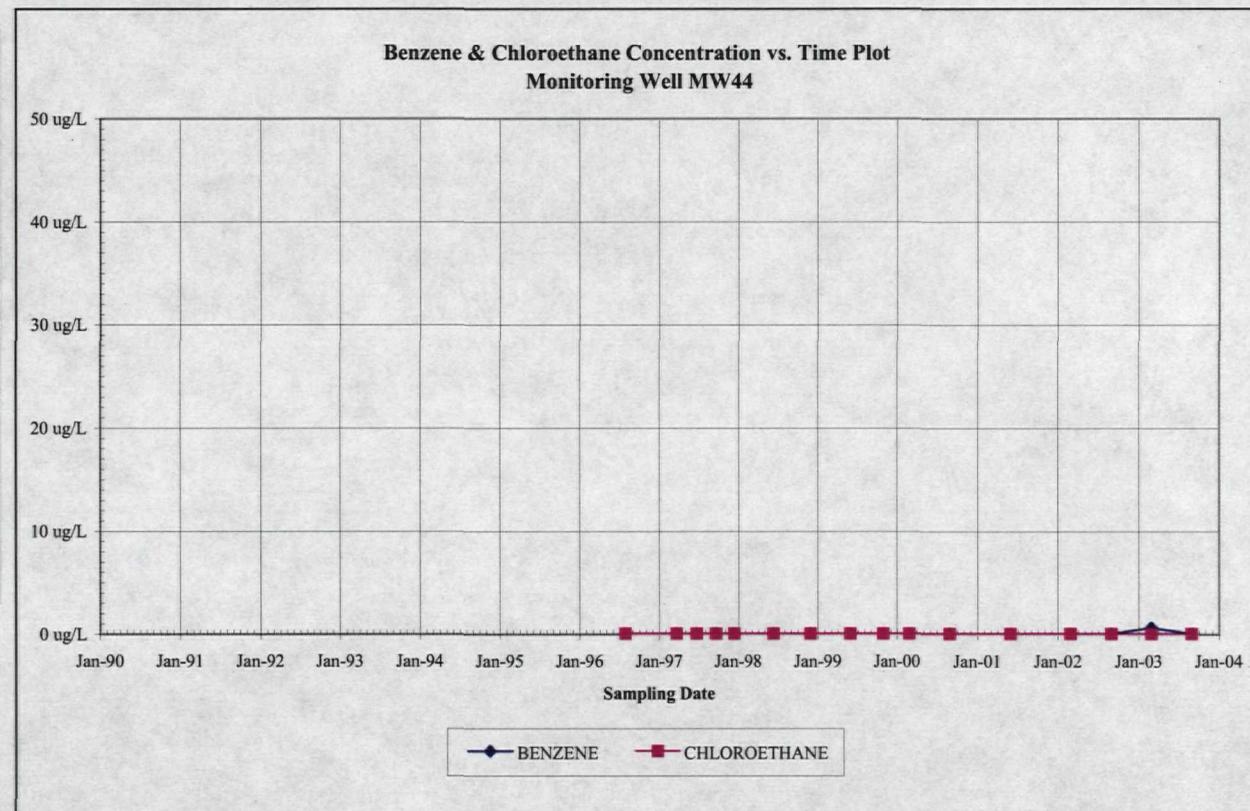
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Upper Aquifer Monitoring Well MW44**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
December-94		
August-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	0.6 ug/L	BDL
September-03	BDL	BDL

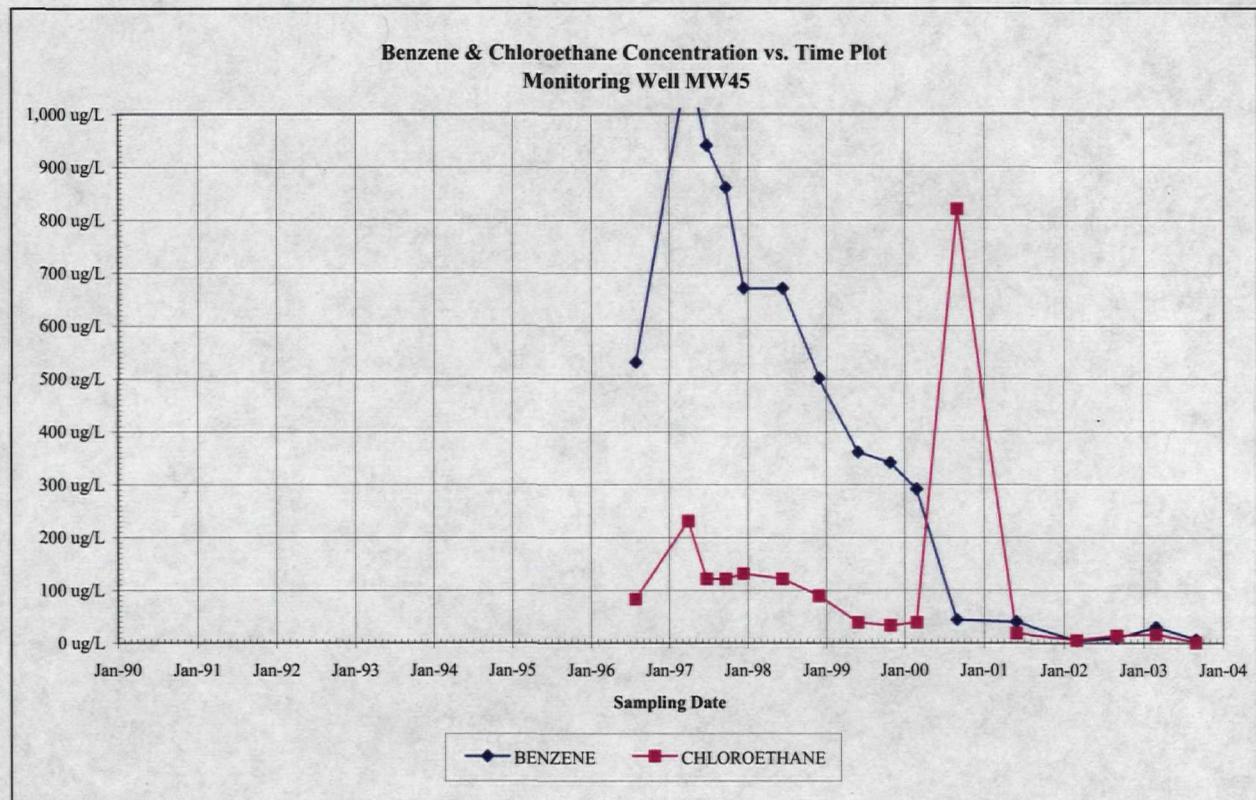
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Upper Aquifer Monitoring Well MW45**

DATE	BENZENE	CHLOROETHANE
BASELINE	1045	215
August-89		
May-90		
December-94		
August-96	530 ug/L	82 ug/L
April-97	1,100 ug/L	230 ug/L
June-97	940 ug/L	120 ug/L
September-97	860 ug/L	120 ug/L
December-97	670 ug/L	130 ug/L
June-98	670 ug/L	120 ug/L
December-98	500 ug/L	88 ug/L
June-99	360 ug/L	38 ug/L
November-99	340 ug/L	32 ug/L
March-00	290 ug/L	38 ug/L
September-00	43 ug/L	820 ug/L
June-01	39 ug/L	17 ug/L
March-02	3 ug/L	4 ug/L
September-02	8 ug/L	13 ug/L
March-03	29 ug/L	15 ug/L
September-03	5 ug/L	BDL

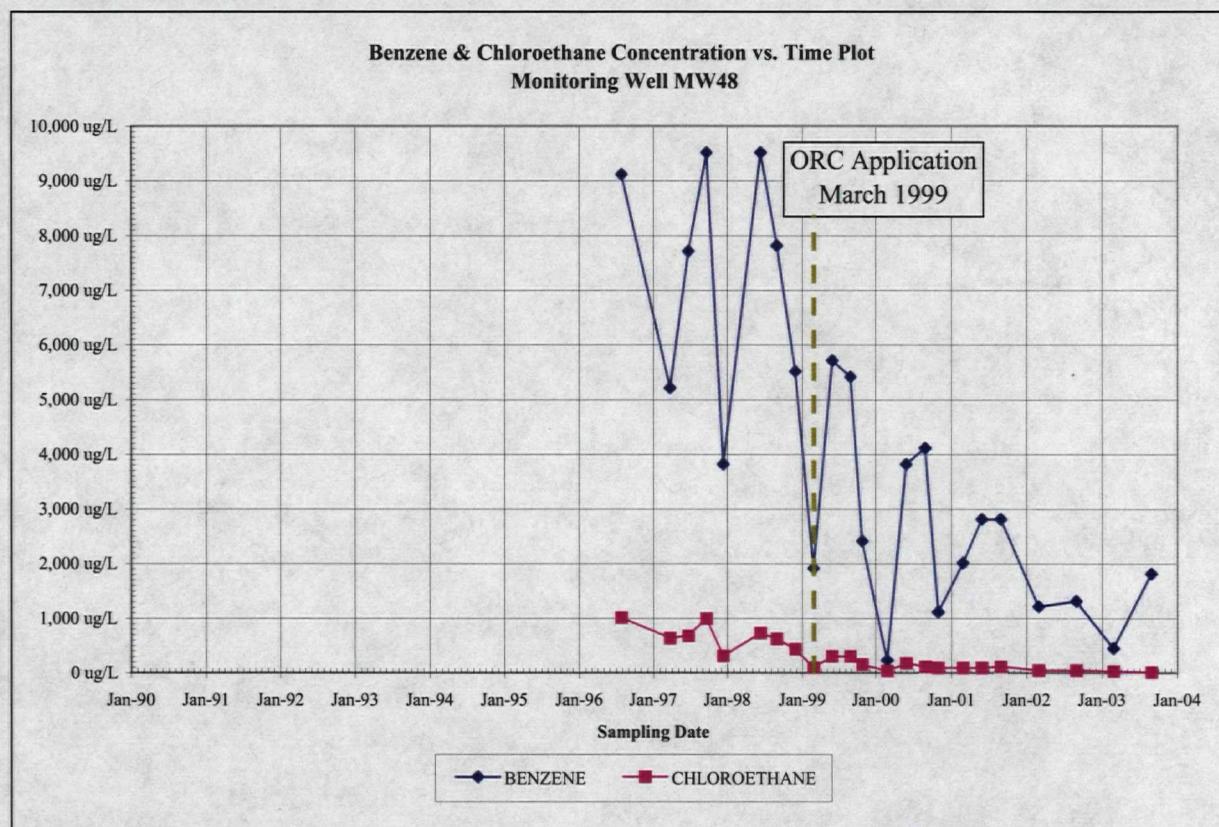
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Upper Aquifer Monitoring Well MW48**

DATE	BENZENE	CHLOROETHANE
BASELINE	9500	1000
August-89		
May-90		
December-94		
August-96	9,100 ug/L	1,000 ug/L
March-97	5,200 ug/L	620 ug/L
June-97	7,700 ug/L	670 ug/L
September-97	9,500 ug/L	980 ug/L
December-97	3,800 ug/L	300 ug/L
June-98	9,500 ug/L	720 ug/L
September-98	7,800 ug/L	610 ug/L
December-98	5,500 ug/L	420 ug/L
March-99	1,900 ug/L	83 ug/L
June-99	5,700 ug/L	290 ug/L
September-99	5,400 ug/L	290 ug/L
November-99	2,400 ug/L	140 ug/L
March-00	220 ug/L	24 ug/L
June-00	3,800 ug/L	160 ug/L
September-00	4,100 ug/L	100 ug/L
November-00	1,100 ug/L	78 ug/L
March-01	2,000 ug/L	78 ug/L
June-01	2,800 ug/L	80 ug/L
September-01	2,800 ug/L	100 ug/L
March-02	1,200 ug/L	33 ug/L
September-02	1,300 ug/L	32 ug/L
March-03	440 ug/L	15 ug/L
September-03	1,800 ug/L	BDL

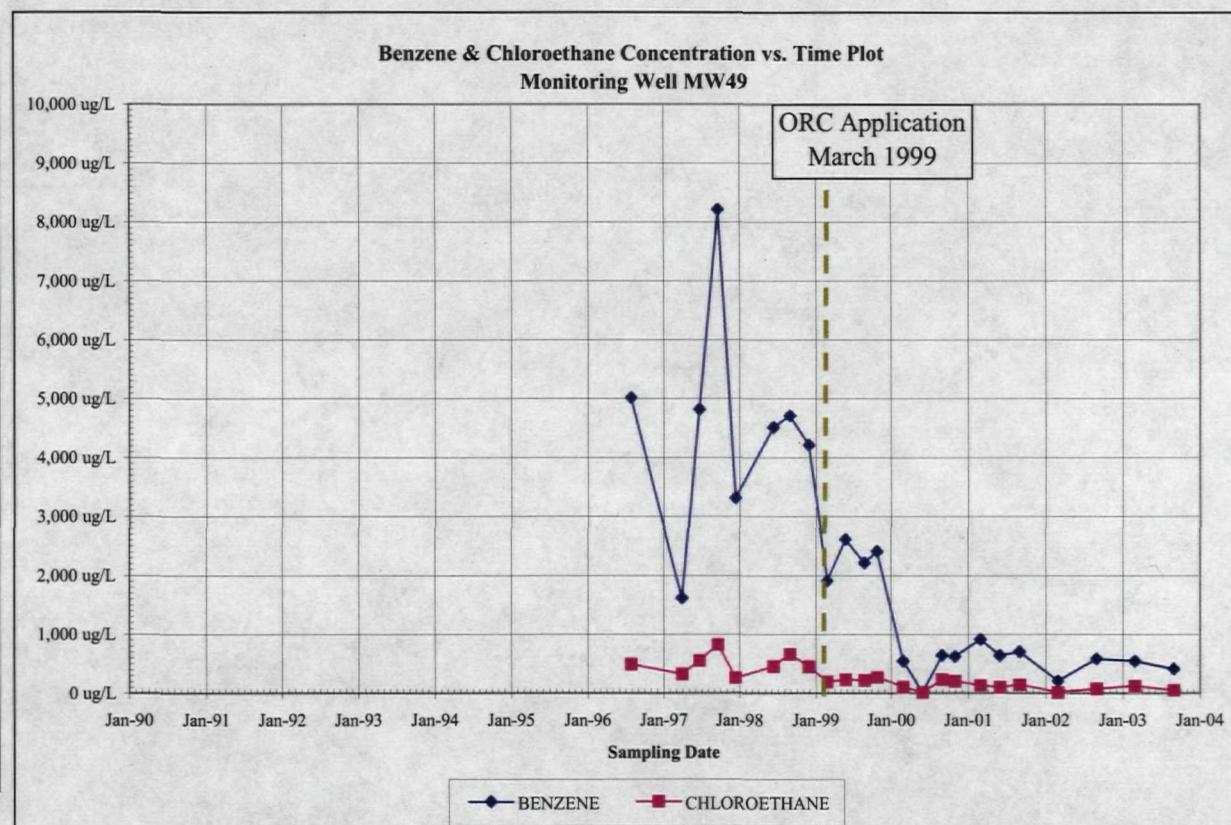
BDL = Below the Detection Limit

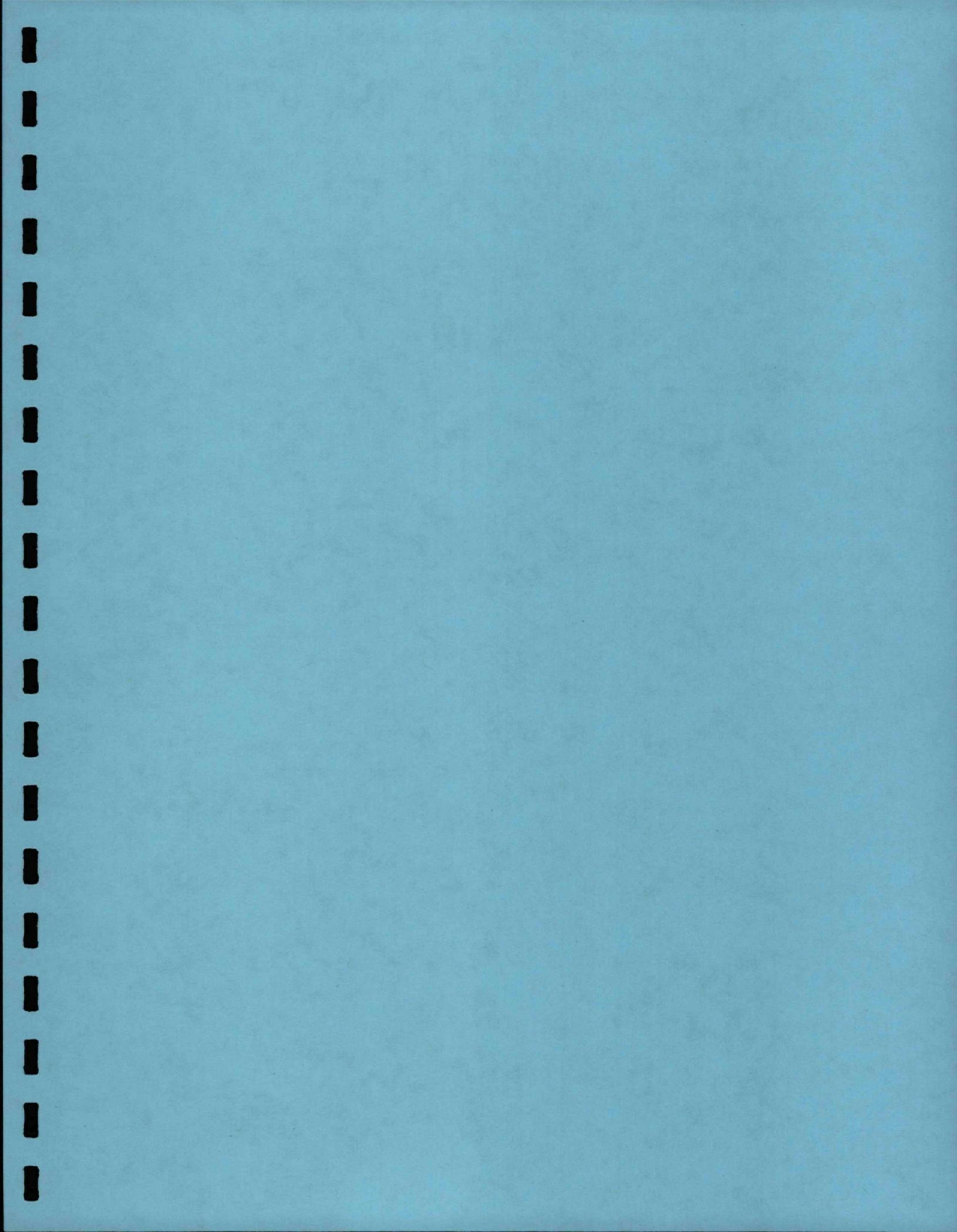


**Concentration vs. Time Plot for
Upper Aquifer Monitoring Well MW49**

DATE	BENZENE	CHLOROETHANE
BASELINE	6750	715
August-89		
May-90		
December-94		
August-96	5,000 ug/L	480 ug/L
April-97	1,600 ug/L	310 ug/L
June-97	4,800 ug/L	540 ug/L
September-97	8,200 ug/L	810 ug/L
December-97	3,300 ug/L	250 ug/L
June-98	4,500 ug/L	450 ug/L
September-98	4,700 ug/L	650 ug/L
December-98	4,200 ug/L	440 ug/L
March-99	1,900 ug/L	180 ug/L
June-99	2,600 ug/L	220 ug/L
September-99	2,200 ug/L	210 ug/L
November-99	2,400 ug/L	260 ug/L
March-00	530 ug/L	91 ug/L
June-00	BDL	BDL
September-00	630 ug/L	220 ug/L
November-00	610 ug/L	190 ug/L
March-01	900 ug/L	120 ug/L
June-01	630 ug/L	91 ug/L
September-01	690 ug/L	130 ug/L
March-02	200 ug/L	BDL
September-02	570 ug/L	60 ug/L
March-03	530 ug/L	110 ug/L
September-03	400 ug/L	38 ug/L

BDL = Below the Detection Limit

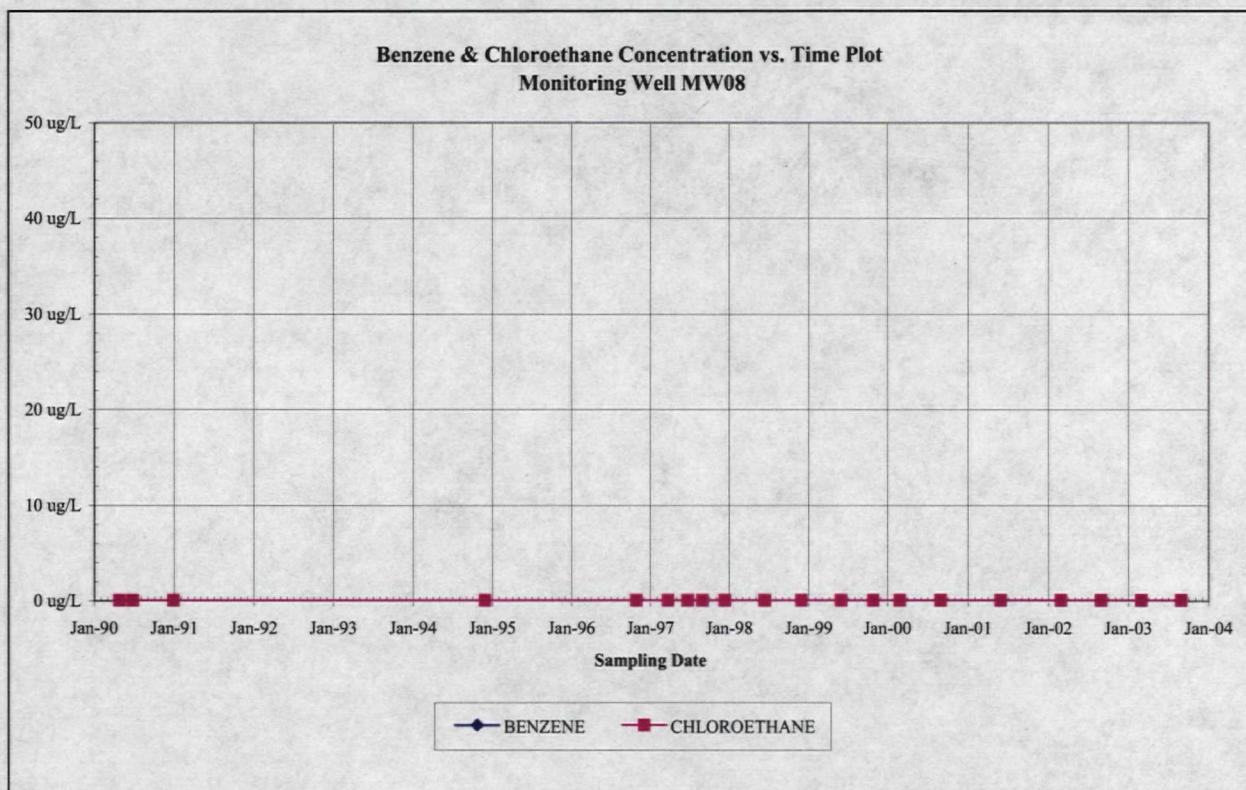




**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW08**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
May-90	BDL	BDL
July-90	BDL	BDL
January-91	BDL	BDL
December-94	BDL	BDL
November-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	BDL	BDL
September-03	BDL	BDL

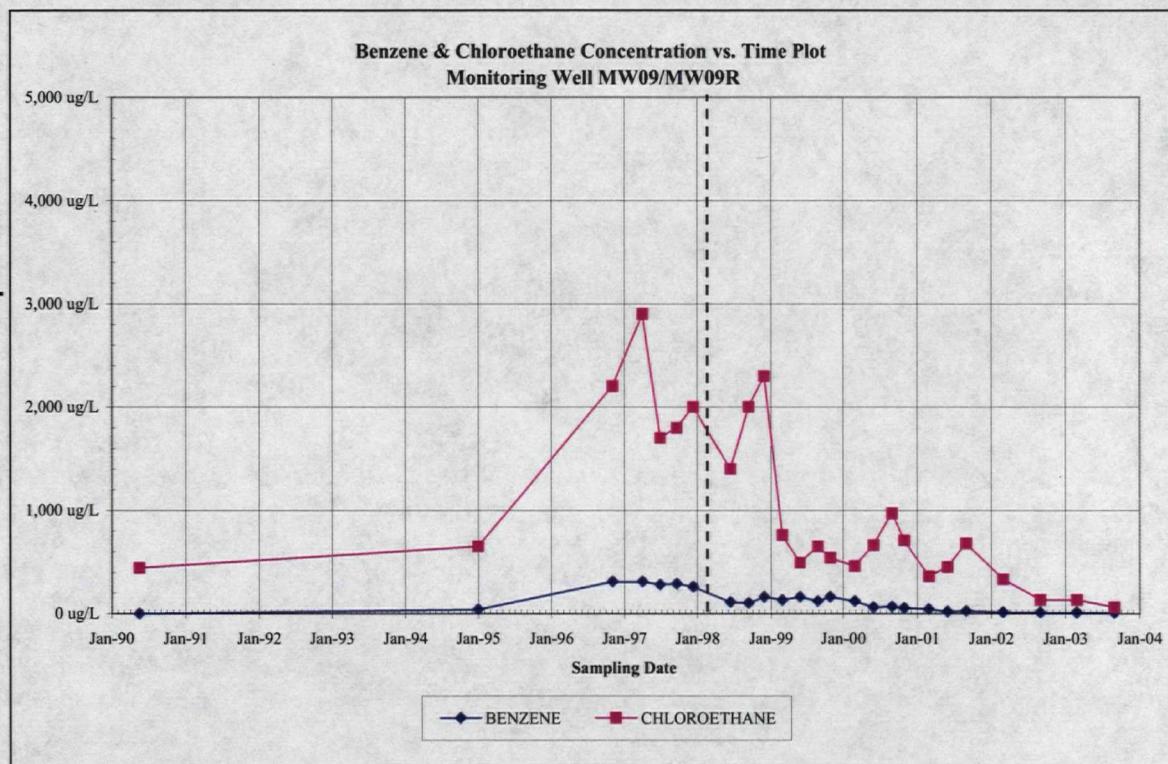
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW09/MW09R**

DATE	BENZENE	CHLOROETHANE
BASELINE	310	2900
August-89		
May-90	BDL	440 ug/L
January-95	40 ug/L	650 ug/L
November-96	310 ug/L	2,200 ug/L
April-97	310 ug/L	2,900 ug/L
June-97	280 ug/L	1,700 ug/L
September-97	290 ug/L	1,800 ug/L
December-97	260 ug/L	2,000 ug/L
June-98	110 ug/L	1,400 ug/L
September-98	100 ug/L	2,000 ug/L
December-98	160 ug/L	2,300 ug/L
March-99	130 ug/L	760 ug/L
June-99	160 ug/L	490 ug/L
September-99	120 ug/L	650 ug/L
November-99	160 ug/L	540 ug/L
March-00	120 ug/L	460 ug/L
June-00	60 ug/L	660 ug/L
September-00	65 ug/L	970 ug/L
November-00	55 ug/L	710 ug/L
March-01	41 ug/L	360 ug/L
June-01	19 ug/L	450 ug/L
September-01	23 ug/L	680 ug/L
March-02	11 ug/L	330 ug/L
September-02	9 ug/L	130 ug/L
March-03	8 ug/L	130 ug/L
September-03	6.6 ug/L	61 ug/L

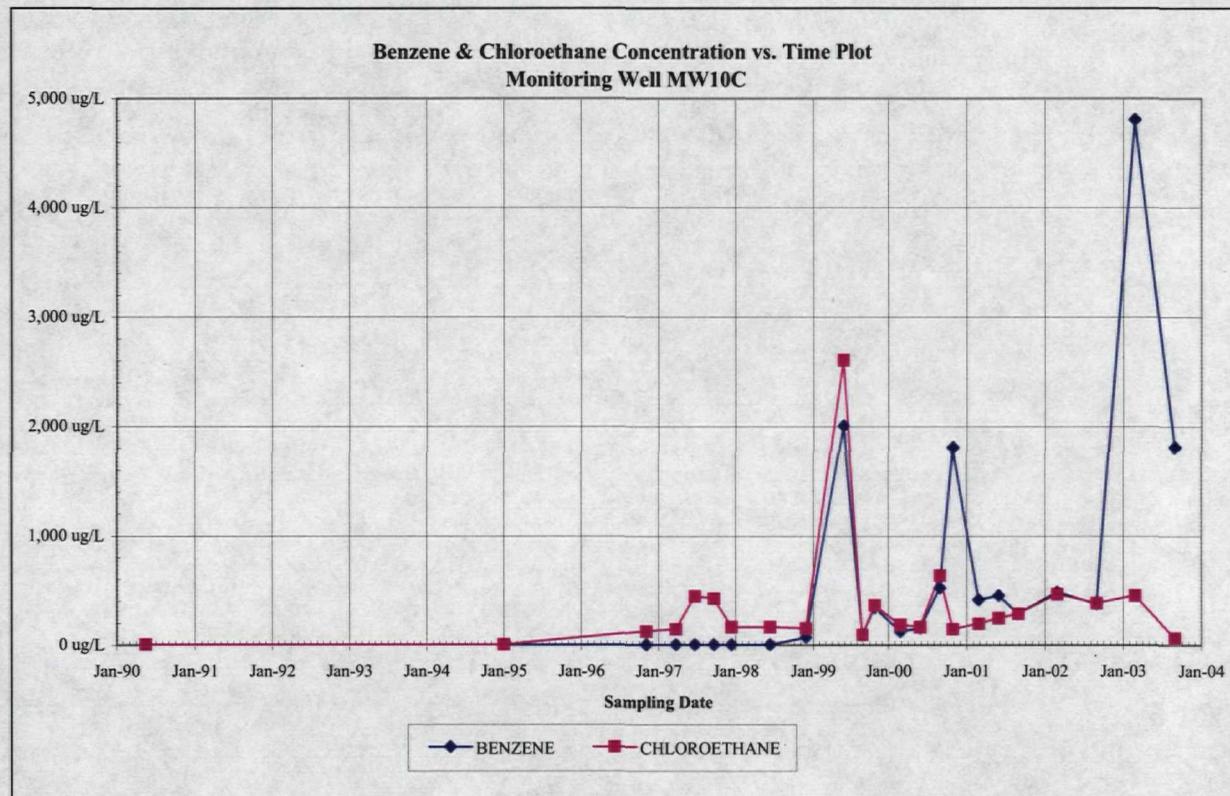
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW10C**

DATE	BENZENE	CHLOROETHANE
BASELINE	150	420
August-89		
May-90	BDL	BDL
January-95	BDL	BDL
November-96	BDL	120 ug/L
March-97	BDL	140 ug/L
June-97	BDL	440 ug/L
September-97	BDL	420 ug/L
December-97	BDL	160 ug/L
June-98	BDL	160 ug/L
December-98	66 ug/L	150 ug/L
June-99	2,000 ug/L	2,600 ug/L
September-99	83 ug/L	88 ug/L
November-99	340 ug/L	360 ug/L
March-00	120 ug/L	180 ug/L
June-00	150 ug/L	160 ug/L
September-00	520 ug/L	630 ug/L
November-00	1,800 ug/L	140 ug/L
March-01	410 ug/L	190 ug/L
June-01	450 ug/L	240 ug/L
September-01	280 ug/L	280 ug/L
March-02	480 ug/L	460 ug/L
September-02	370 ug/L	380 ug/L
March-03	4,800 ug/L	450 ug/L
September-03	1,800 ug/L	60 ug/L

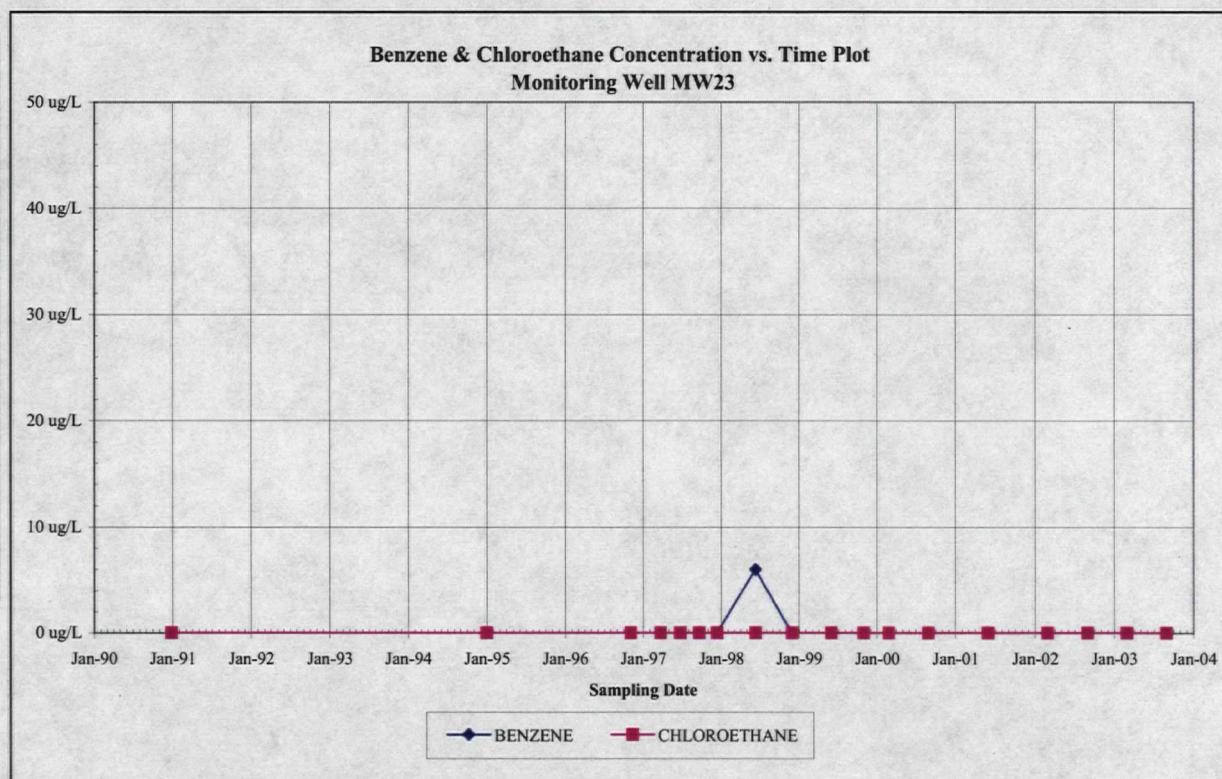
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW23**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
January-91	BDL	BDL
January-95	BDL	BDL
November-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	6 ug/L	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	BDL	BDL
September-03	BDL	BDL

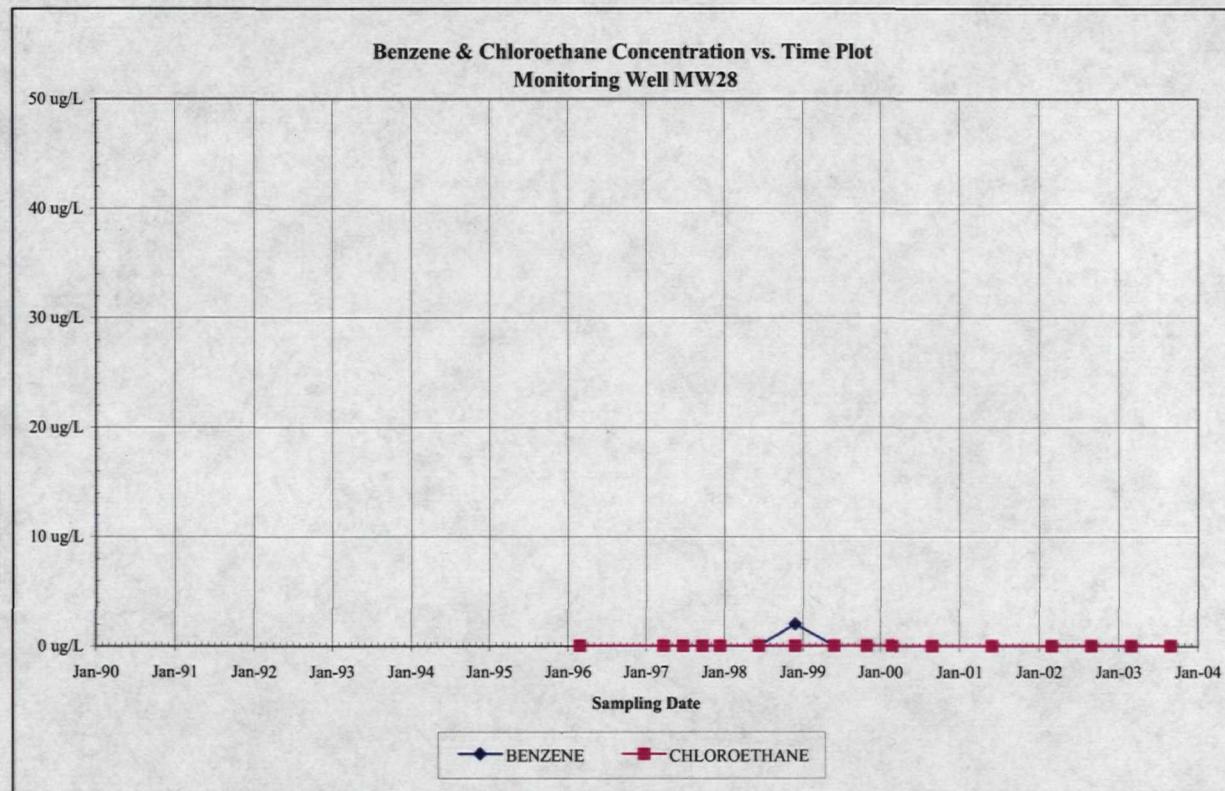
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW28**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
March-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	2 ug/L	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	BDL	BDL
September-03	BDL	BDL

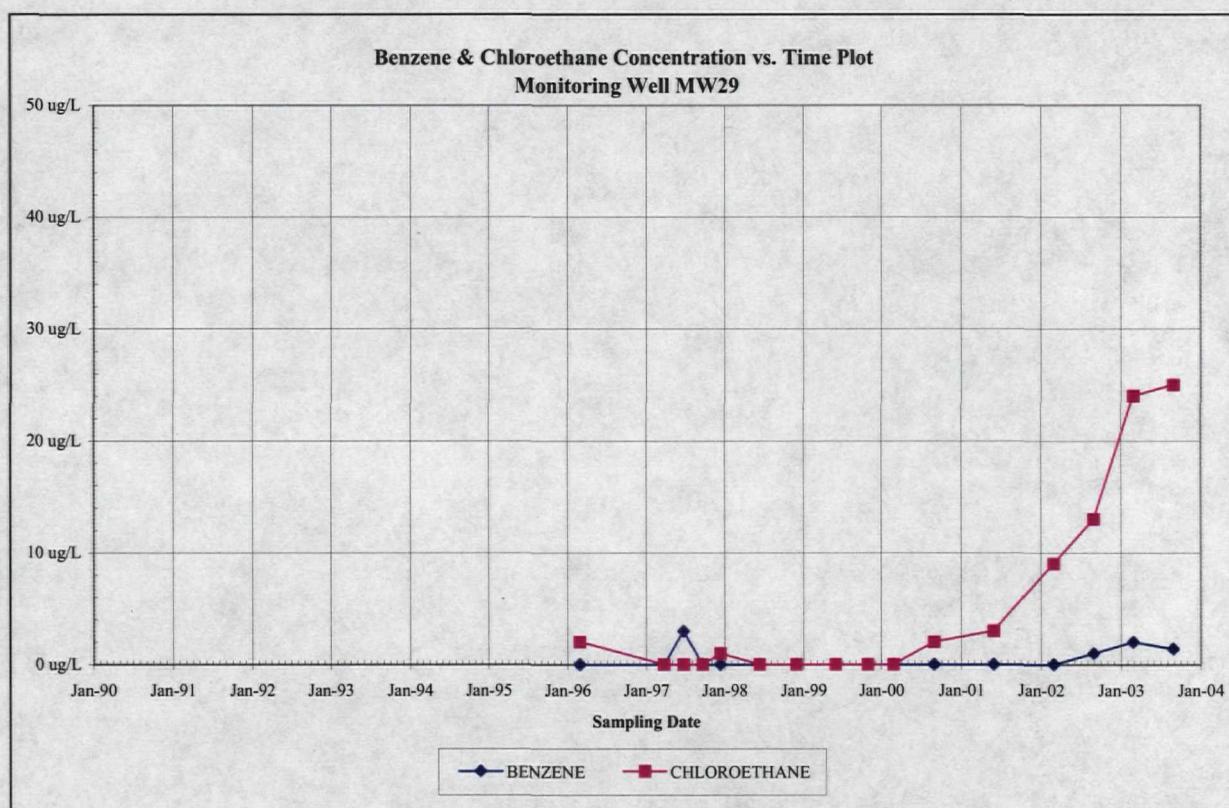
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW29**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
March-96	BDL	2 ug/L
March-97	BDL	BDL
June-97	3 ug/L	BDL
September-97	BDL	BDL
December-97	BDL	1 ug/L
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	2 ug/L
June-01	BDL	3 ug/L
March-02	BDL	9 ug/L
September-02	1 ug/L	13 ug/L
March-03	2 ug/L	24 ug/L
September-03	1.4 ug/L	25 ug/L

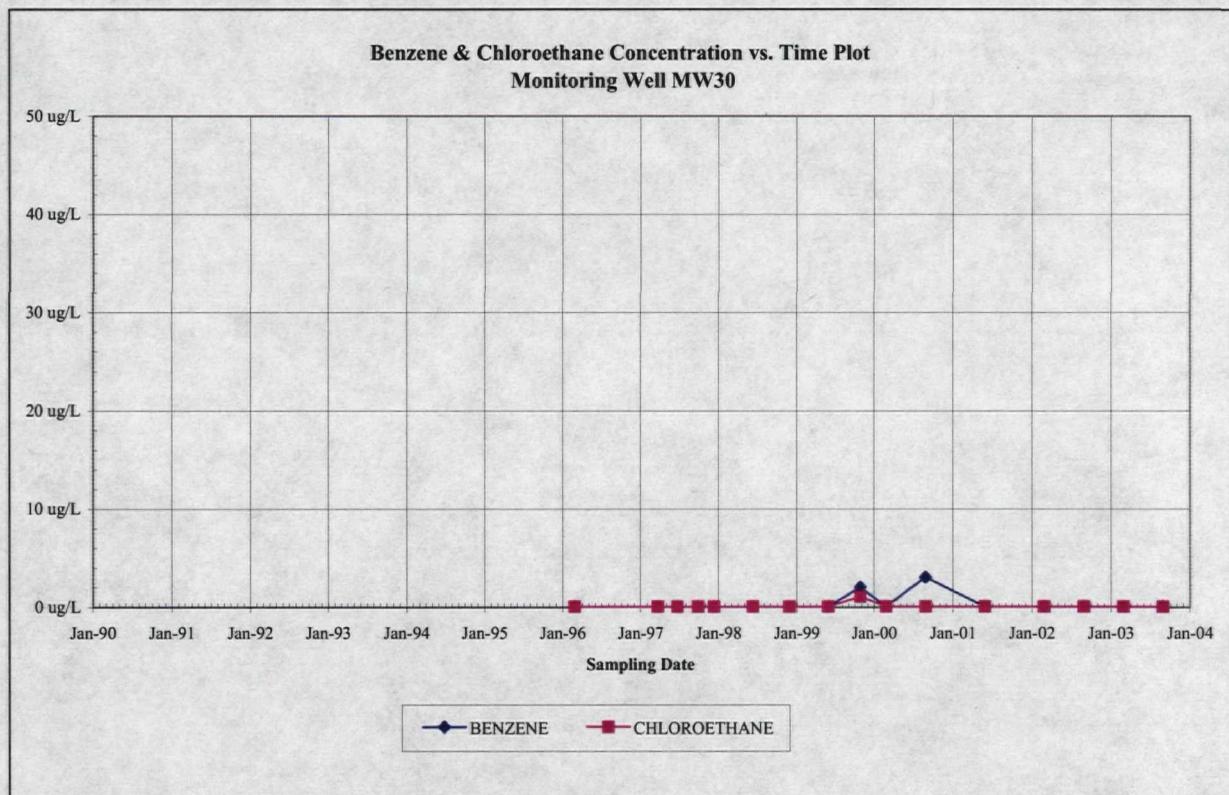
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW30**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
March-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
October-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	2 ug/L	1 ug/L
March-00	BDL	BDL
September-00	3 ug/L	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	BDL	BDL
September-03	BDL	BDL

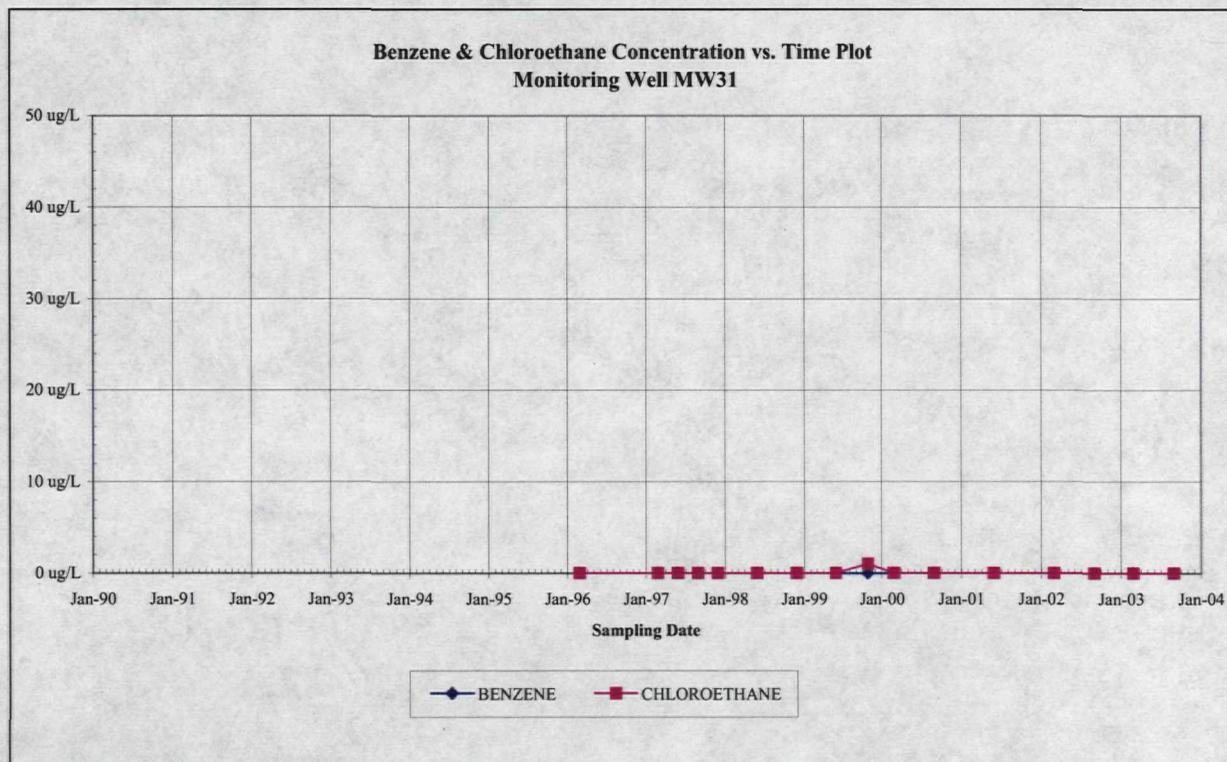
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW31**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
March-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	1 ug/L
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	BDL	BDL
September-03	BDL	BDL

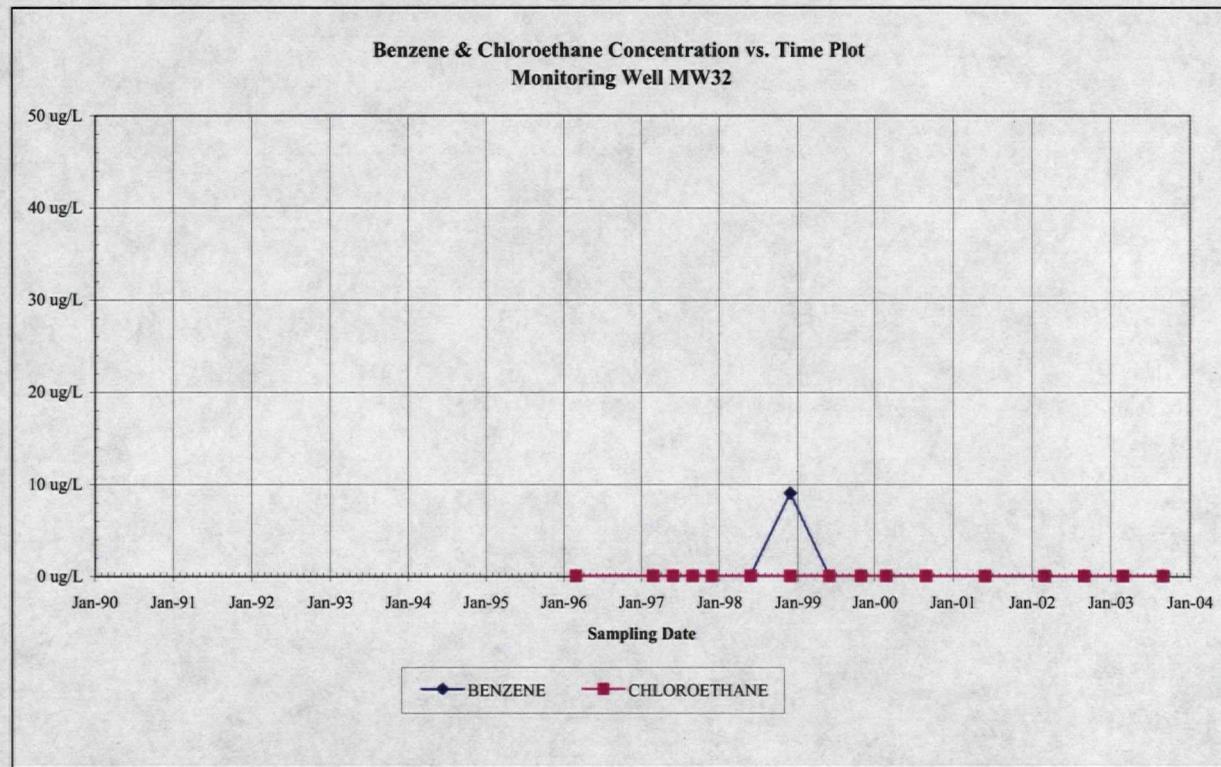
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW32**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
March-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	9 ug/L	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	BDL	BDL
September-03	BDL	BDL

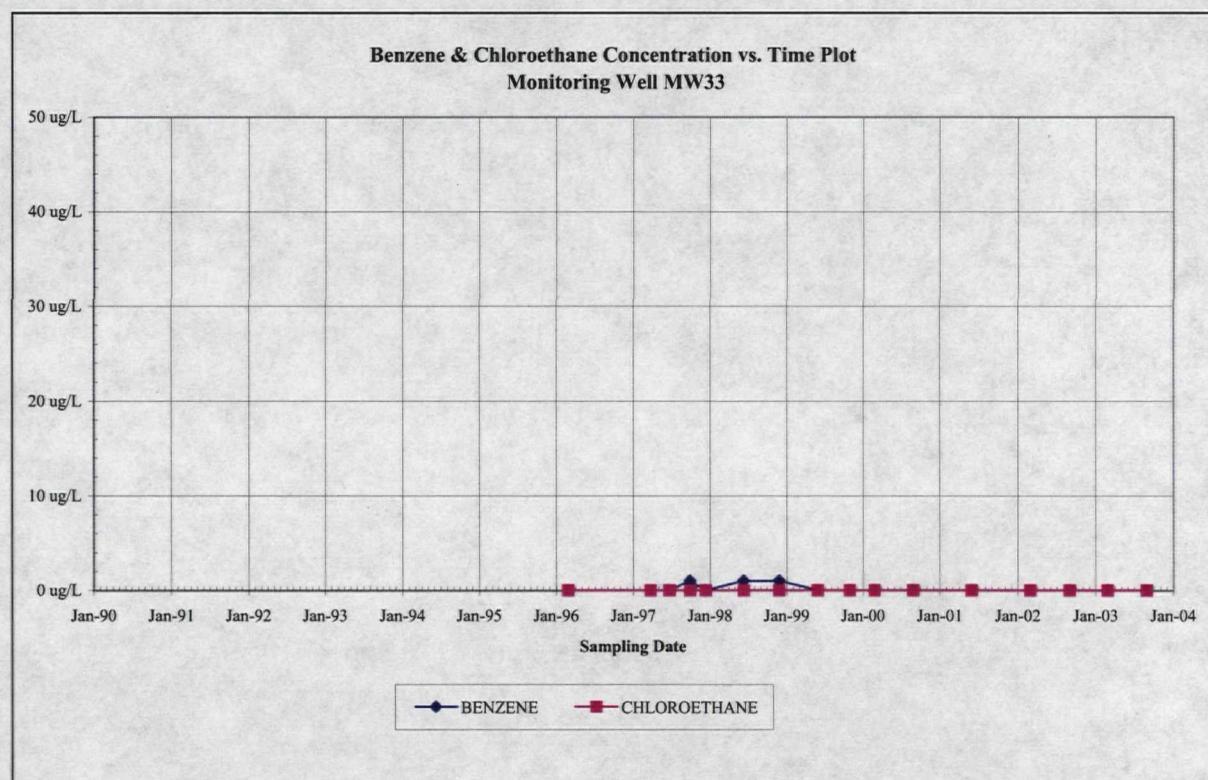
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW33**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
March-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
October-97	1 ug/L	BDL
December-97	BDL	BDL
June-98	1 ug/L	BDL
December-98	1 ug/L	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	BDL	BDL
September-03	BDL	BDL

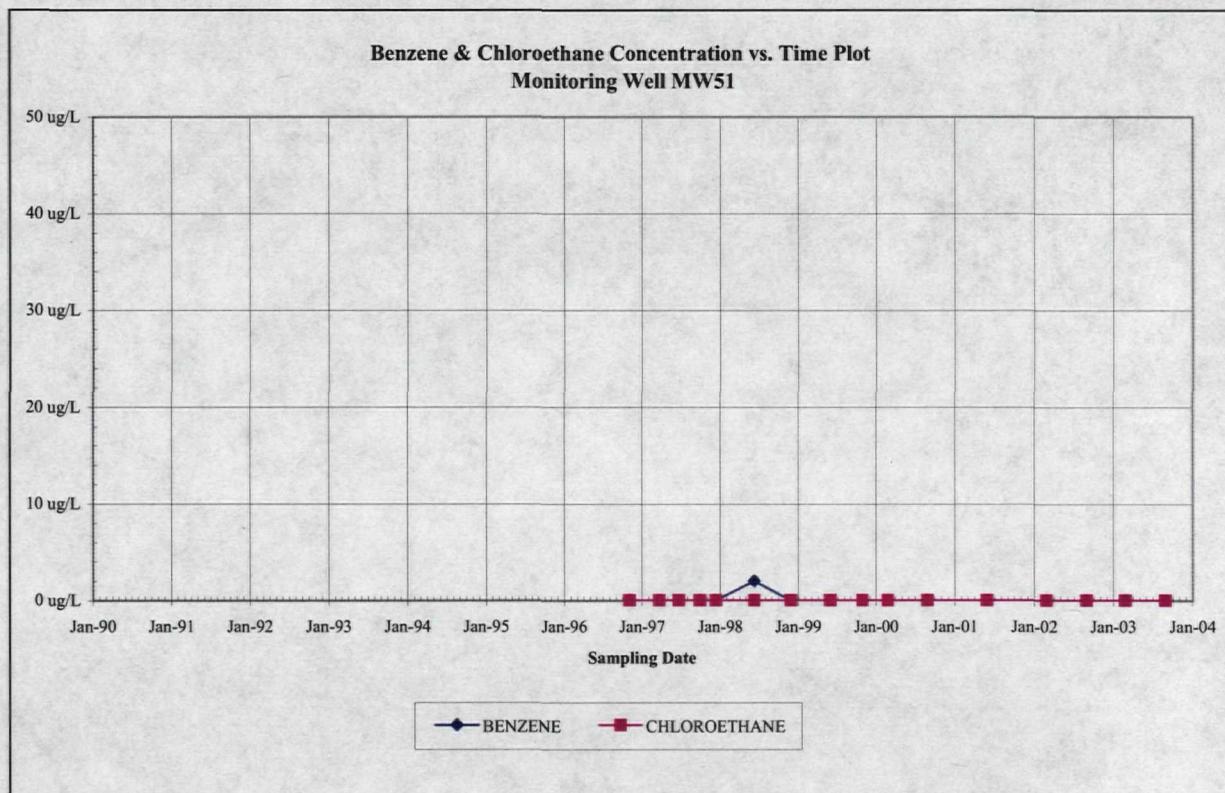
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW51**

DATE	BENZENE	CHLOROETHANE
BASELINE	100	100
August-89		
May-90		
January-95		
November-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
October-97	BDL	BDL
December-97	BDL	BDL
June-98	2 ug/L	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	BDL	BDL
September-03	BDL	BDL

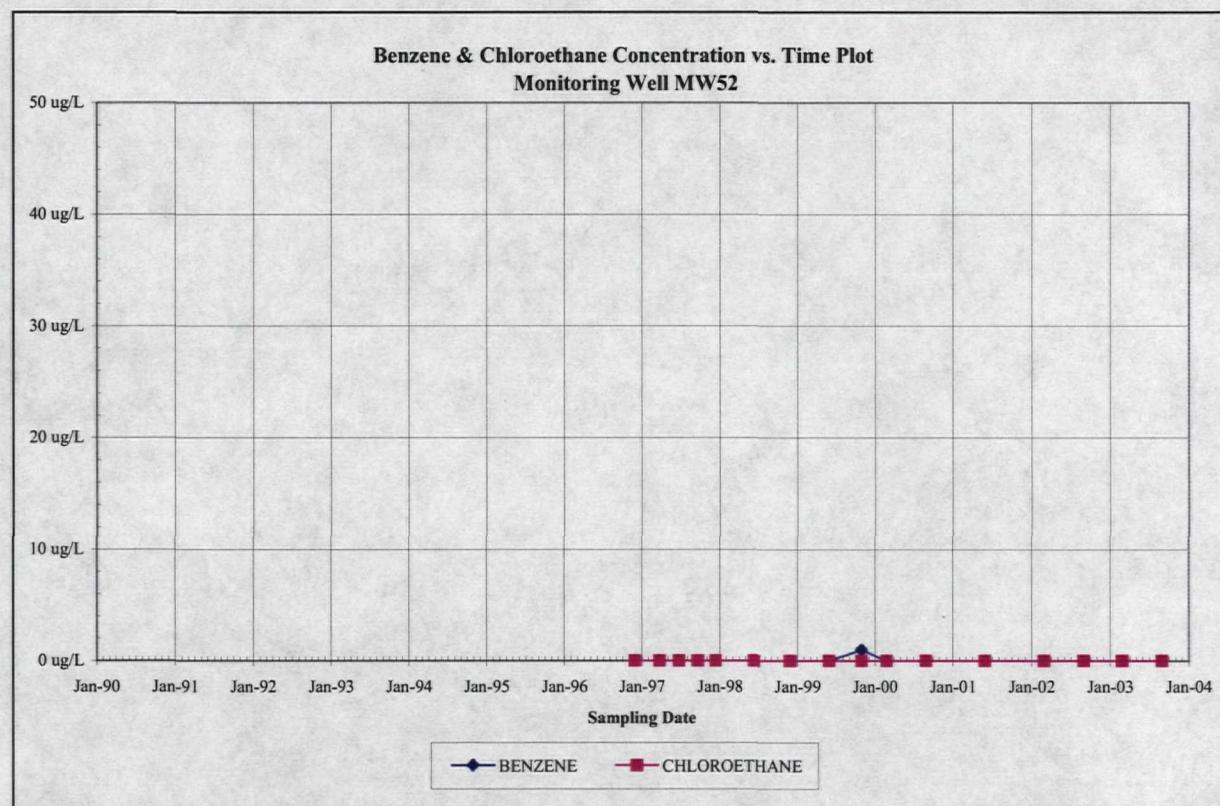
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW52**

DATE	BENZENE	CHLOROETHANE
BASELINE	100	100
August-89		
May-90		
January-95		
December-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	1 ug/L	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	BDL	BDL
September-03	BDL	BDL

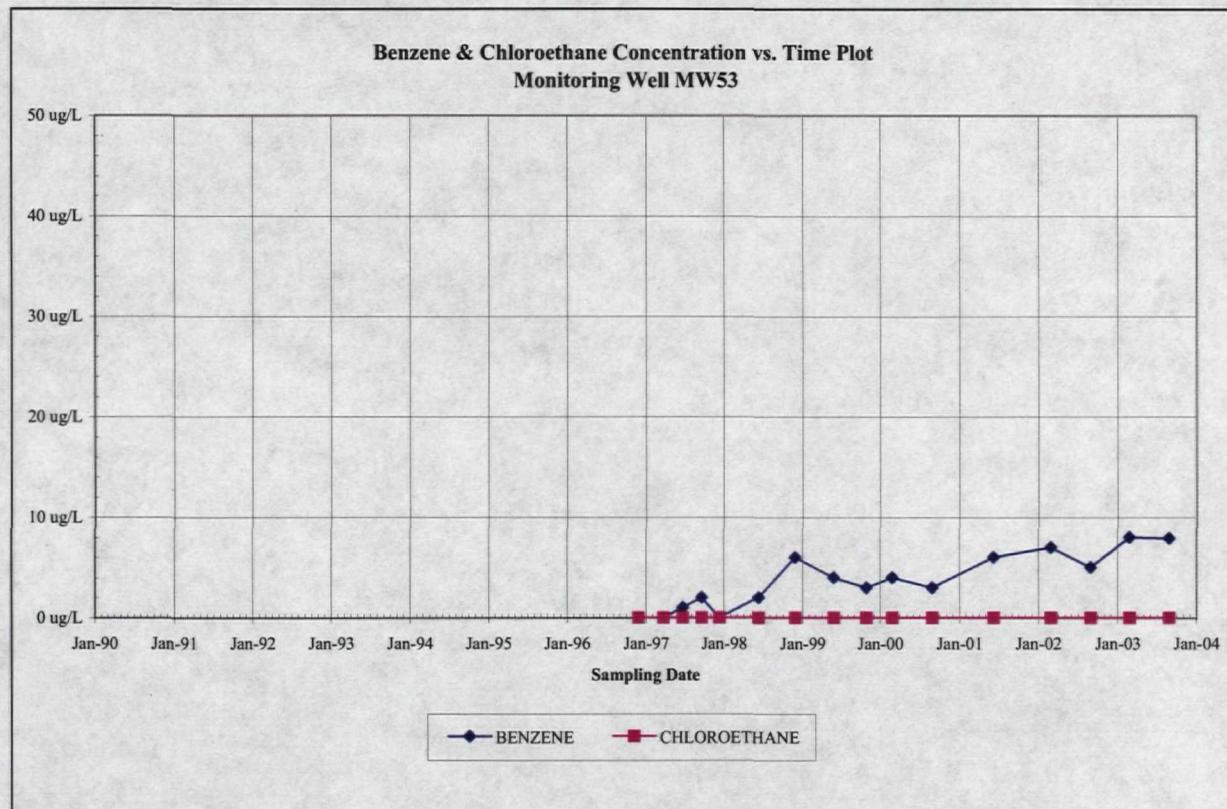
BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW53**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
December-96	BDL	BDL
March-97	BDL	BDL
June-97	1 ug/L	BDL
September-97	2 ug/L	BDL
December-97	BDL	BDL
June-98	2 ug/L	BDL
December-98	6 ug/L	BDL
June-99	4 ug/L	BDL
November-99	3 ug/L	BDL
March-00	4 ug/L	BDL
September-00	3 ug/L	BDL
June-01	6 ug/L	BDL
March-02	7 ug/L	BDL
September-02	5 ug/L	BDL
March-03	8 ug/L	BDL
September-03	7.9 ug/L	BDL

BDL = Below the Detection Limit

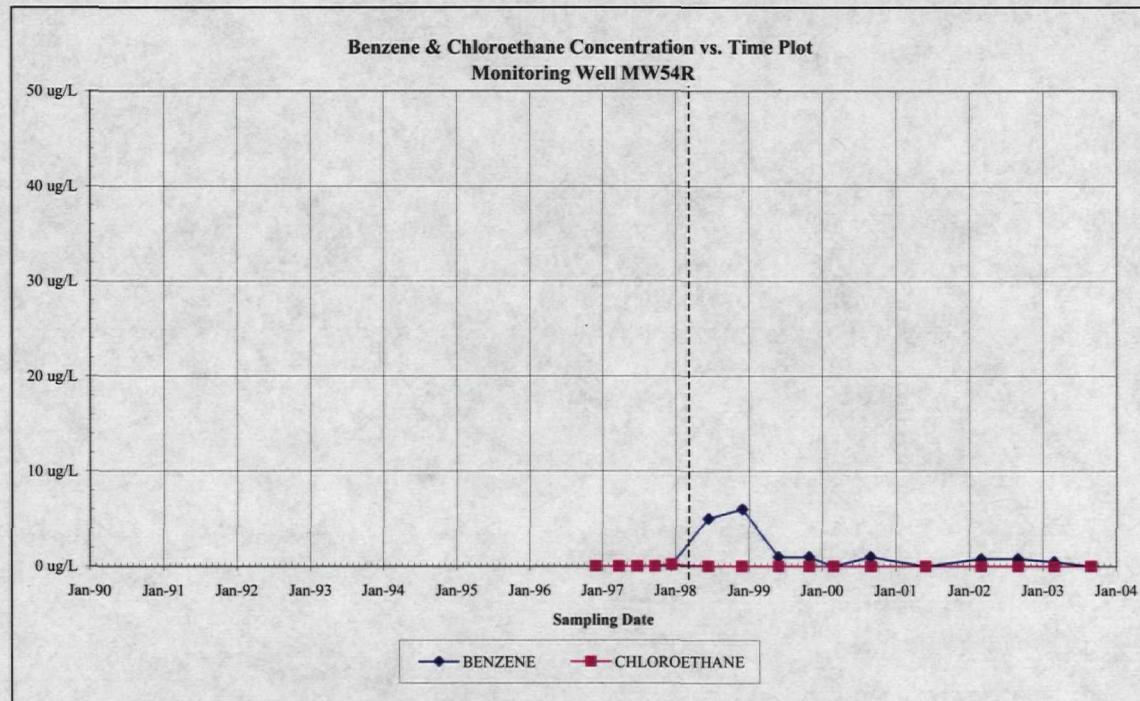


**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW54R**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
December-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	0.1 ug/L	0.2 ug/L
June-98	5 ug/L	BDL
December-98	6 ug/L	BDL
June-99	1 ug/L	BDL
November-99	1 ug/L	BDL
March-00	BDL	BDL
September-00	1 ug/L	BDL
June-01	BDL	BDL
March-02	1 ug/L	BDL
September-02	1 ug/L	BDL
March-03	0.5 ug/L	BDL
September-03	BDL	BDL

BDL = Below the Detection Limit

MW54 was damaged by a vehicle and was replaced with MW54R

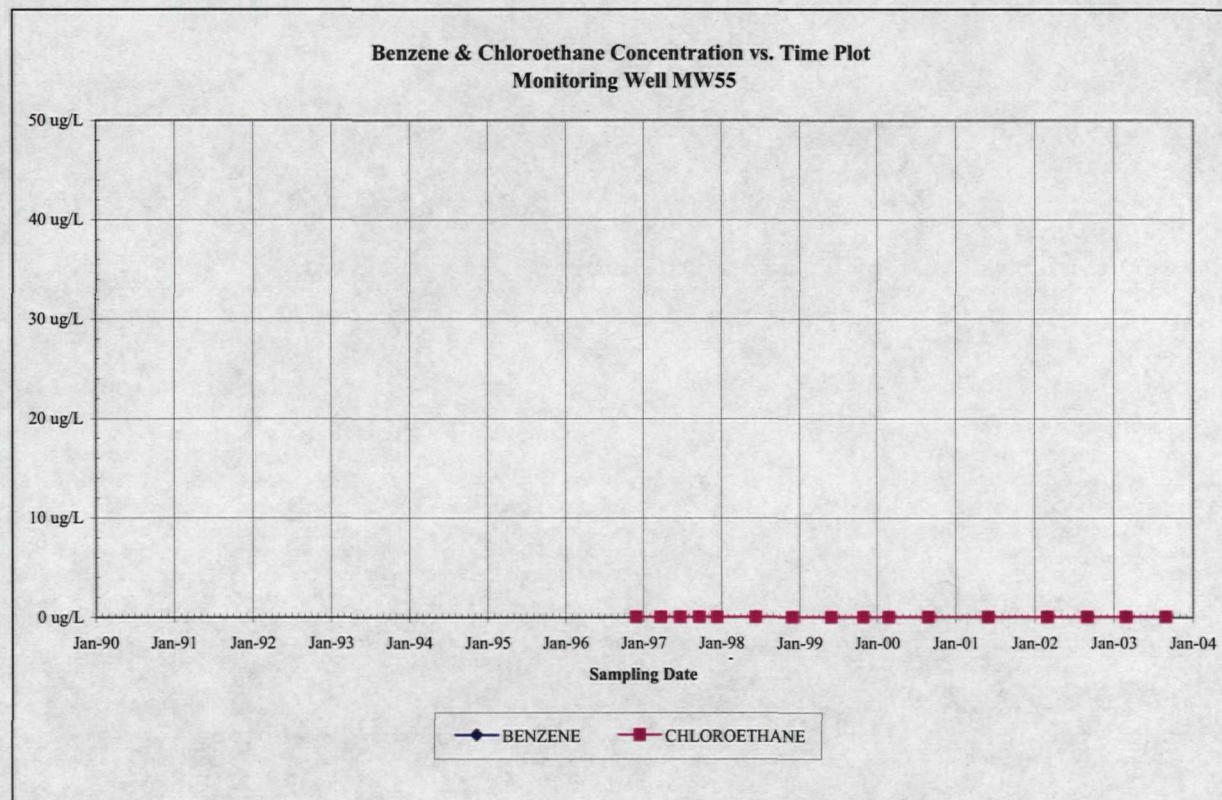


----- Line indicates change to replacement well

**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well MW55**

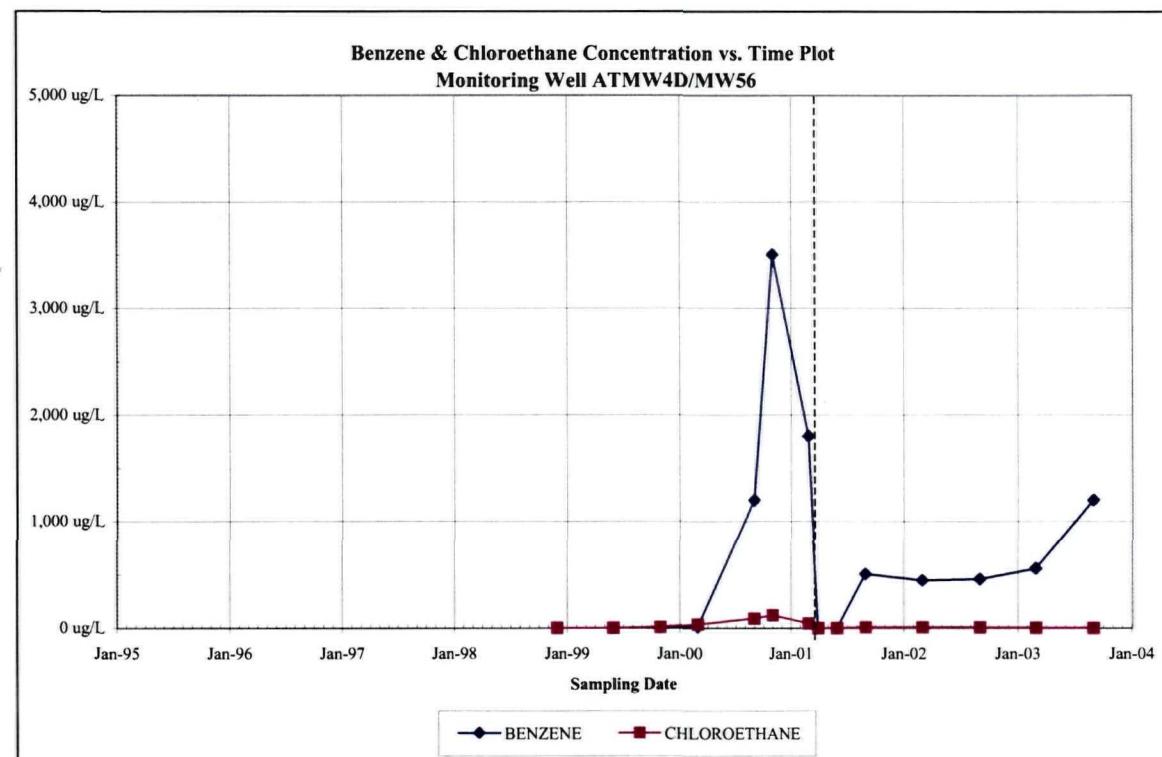
DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
December-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL
March-03	BDL	BDL
September-03	BDL	BDL

BDL = Below the Detection Limit



**Concentration vs. Time Plot for
Lower Aquifer Monitoring Well ATMW4D-MW56**

DATE	BENZENE	CHLOROETHANE
BASELINE	-	-
December-98	BDL	BDL
June-99	BDL	BDL
November-99	3 ug/L	9 ug/L
March-00	12 ug/L	34 ug/L
September-00	1,200 ug/L	88 ug/L
November-00	3,500 ug/L	120 ug/L
March-01	1,800 ug/L	42 ug/L
April-01	BDL	BDL
June-01	BDL	BDL
September-01	510 ug/L	10 ug/L
March-02	450 ug/L	8 ug/L
September-02	460 ug/L	6 ug/L
March-03	560 ug/L	4 ug/L
September-03	1,200 ug/L	BDL



----- Line indicates change to replacement well



Appendix C
Data Validation Narratives and Laboratory Analytical Reports

Monitoring Wells

VOC Results: Data Validation Summary
Sample Data Group (SDG) 842, 844

Metals Results: Data Validation Summary
SDG 844

Precision, Accuracy, Representativeness, Comparability, Completeness (PARCC) Report

Residential Wells

VOC Results: Data Validation Summary
SDG 864

SVOC Results: Data Validation Summary
SDG 864

SVOC Results (November Resampling): Data Validation Summary
SDG 1520

PCB/Pesticide Results: Data Validation Summary
SDG 864

Metals Results: Data Validation Summary
SDG 864

Cyanide Results: Data Validation Summary
SDG 864

PARCC Report

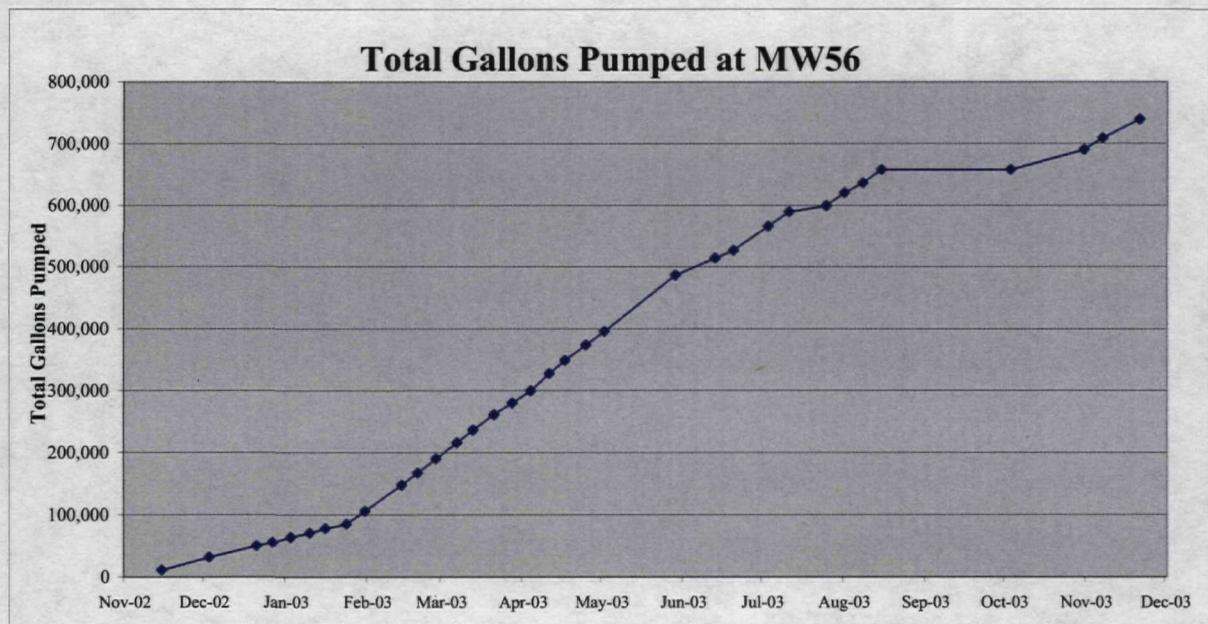


Pumping Data for Lower Aquifer Monitoring Well MW56

MW56				
Measurement Date	Flow Rate (GPM)	Total Gallons Pumped	Days Between Measurements	Gallons per Day
11/15/02	1	10,620	---	---
12/03/02	1	31,620	18	1,167
12/21/02	1.5	50,130	18	1,028
12/27/02	1.5	54,870	6	790
01/03/03	1.5	63,460	7	1,227
01/10/03	1.5	70,130	7	953
01/16/03	1.5	77,380	6	1,208
01/24/03	1.5	84,840	8	933
01/31/03	2	105,400	7	2,937
02/14/03	2	147,310	14	2,994
02/20/03	2	166,550	6	3,207
02/27/03	2	190,130	7	3,369
03/07/03	2	215,980	8	3,231
03/13/03	2	236,440	6	3,410
03/21/03	2	261,380	8	3,118
03/28/03	2	279,930	7	2,650
04/04/03	2	299,360	7	2,776
04/11/03	2	327,490	7	4,019
04/17/03	2	348,540	6	3,508
04/25/03	2	373,590	8	3,131
05/02/03	2	395,770	7	3,169
05/29/03	2	486,640	27	3,366
06/13/03	2	514,120	15	1,832
06/20/03	2	526,930	7	1,830
07/03/03	2	565,650	13	2,978
07/11/03	2	589,150	8	2,938
07/25/03	2	598,780	14	688

MW56				
Measurement Date	Flow Rate (GPM)	Total Gallons Pumped	Days Between Measurements	Gallons per Day
08/01/03	2	620,210	7	3,061
08/08/03	2	636,400	7	2,313
08/15/03	2	657,820	7	3,060
10/03/03	2	657,850	49	1
10/31/03	2	690,420	28	1,163
11/07/03	2	709,130	7	2,673
11/21/03	2	738,920	14	2,128

GPM - Gallons per minute



Pumping Data for Lower Aquifer Monitoring Well MW10C

MW10C				
Measurement Date	Flow Rate (GPM)	Total Gallons Pumped	Days Between Measurements	Gallons per Day
11/15/02	0.5	1,580	---	---
12/03/02	0.5	1,580	18	0
12/21/02	0.5	1,580	18	0
12/27/02	0.5	1,580	6	0
01/03/03	0.5	1,580	7	0
01/10/03	0.5	1,580	7	0
01/16/03	0.5	1,580	6	0
01/24/03	0.5	1,580	8	0
01/31/03	0.5	1,580	7	0
02/14/03	0.5	2,210	14	45
02/20/03	0.5	2,210	6	0
02/27/03	0.5	2,210	7	0
03/07/03	1	5,840	8	454
03/13/03	1	9,350	6	585
03/21/03	1	22,470	8	1,640
03/28/03	1	32,930	7	1,494
04/04/03	1	40,800	7	1,124
04/11/03	1	40,810	7	1
04/17/03	1	42,750	6	323
04/25/03	1	63,370	8	2,578
05/02/03	1	81,750	7	2,626
05/29/03	1	156,790	27	2,779
06/13/03	1	180,950	15	1,611
06/20/03	1	192,880	7	1,704
07/03/03	1	242,300	13	3,802
07/11/03	1	272,930	8	3,829
07/25/03	2	285,410	14	891

MW10C				
Measurement Date	Flow Rate (GPM)	Total Gallons Pumped	Days Between Measurements	Gallons per Day
08/01/03	2	313,850	7	4,063
08/08/03	2	335,510	7	3,094
08/15/03	2	364,550	7	4,149
10/03/03	2	387,450	49	467
10/31/03	2	388,270	28	29
11/07/03	2	414,050	7	3,683
11/21/03	2	454,920	14	2,919

GPM - Gallons per minute

Pump was lowered 2.5 within well on Feb 3, 2003.

